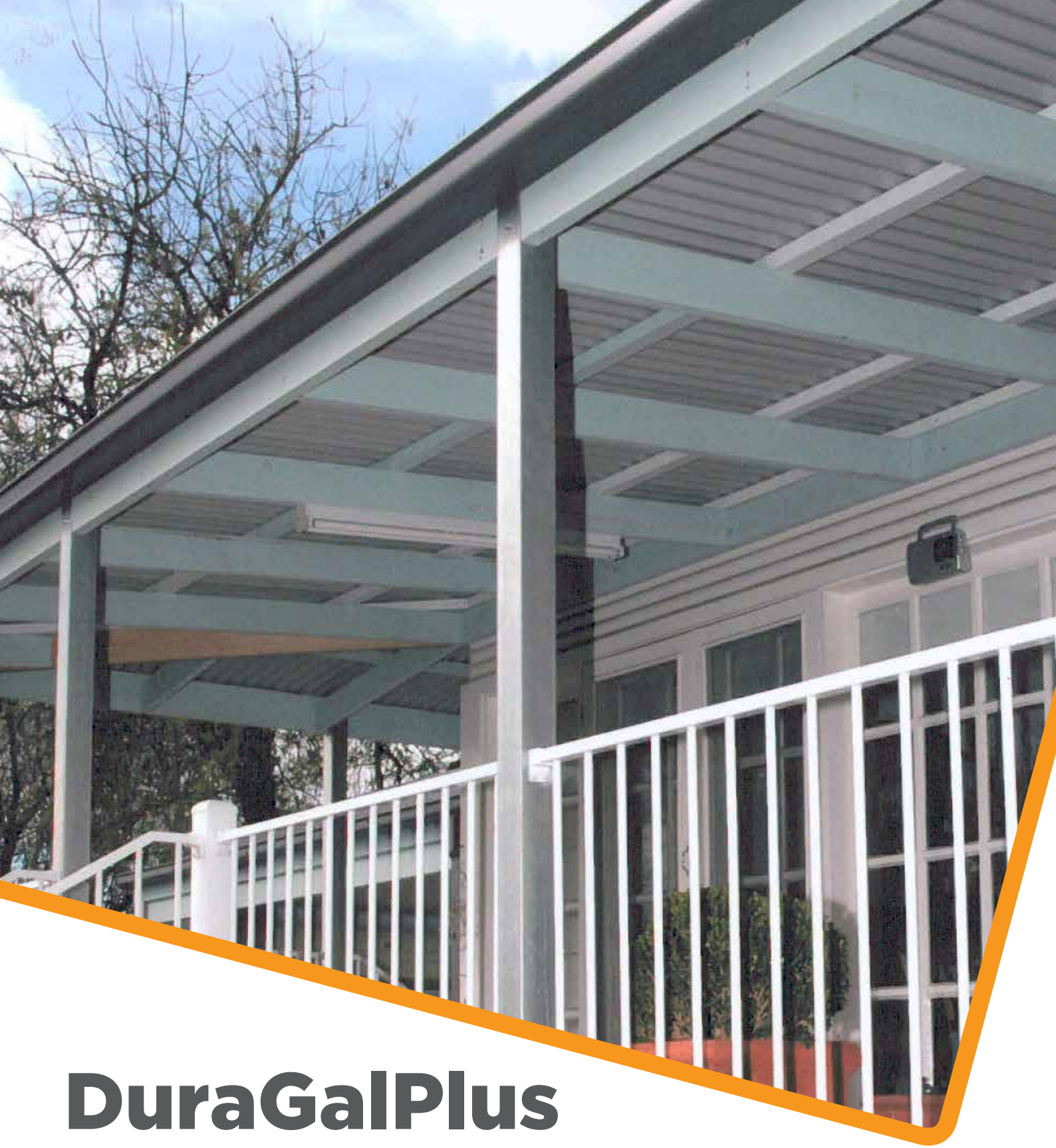


DuraGalPlus Verandah Beam

Spanning tables

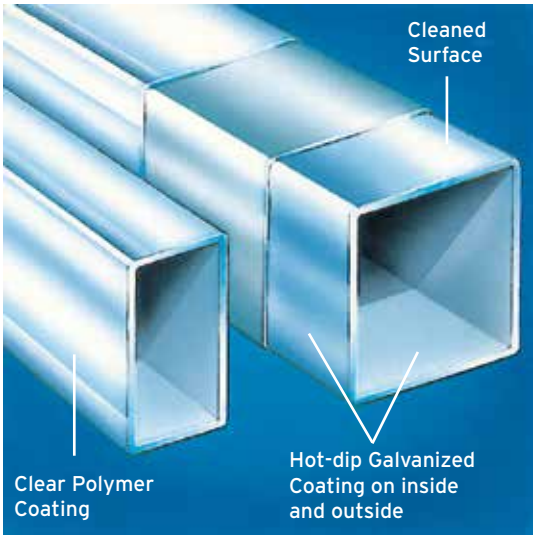
Technical specifications

DuraGal Plus

AustubeMills
SHAPING POSSIBILITIES

10 DuraGalPlus C450PLUS benefits

1. High Tensile, stronger and lighter
2. Up to 28% more strength at no extra cost
3. Save weight - save money by using a lighter wall in many applications
4. C450PLUS product - complies with both C350L0 and C450L0 requirements
5. Corrosion ressistant, hot-dip, galvanized coating system
6. Surface prepared for easy painting
7. Easy to cut, weld, drill, paint or powder coat
8. Cost savings - practically eliminates the costs incurred by shot-blasting, cleaning and painting after fabrication
9. Consistent quality and dimensional tolerances



For advice on painting systems for a wide range of environments see the *DuraGal® Easy Painting and Corrosion Protection Guide*, and for practical welding hints and recommendations on consumables see the *DuraGal® Easy Welding Guide*.

STRUCterre consulting engineers

Residential Geotechnical Commercial & Infrastructure
Inspect & Investigate Energy Assessment Environmental

05 June 2017

Reference: 35739-16CS Vdah ST01

Austube Mills
Industrial Drive
Newcastle NSW 2304

Dear Sir,

Re: Structural Engineers Certification of DuraGalPlus Verandah Beam Spanning Tables (Technical specifications) May 2017 Edition

We hereby certify that we have checked the structural aspects of the span tables presented in the DuraGalPlus Verandah Beam Spanning Tables, dated May 2017.

We certify that the design tables conform to the requirements of the National Construction Code 2016 Building Code of Australia, and the following Australian Standards:

- AS/NZS 1170.0:2002 Structural design actions Part 0: General principles
- AS/NZS 1170.1:2002 Structural design actions Part 1: Permanent, imposed and other actions
- AS 4055:2012 Wind loads for housing
- NASH Standard: Residential and Low-rise Steel Framing Part 1: Design Criteria 2005
- AS 4100:1998 Steel Structures

These tables, when used within the parameters and limitations presented in this document, will provide structural solutions which satisfy the requirements of the National Construction Code 2016 Building Code of Australia and the referenced standards.

Yours faithfully
Structerre Consulting Engineers

Gervase Purich
BE FIEAust CPEng NPER RPEQ
CEO

WA | QLD | NSW | VIC

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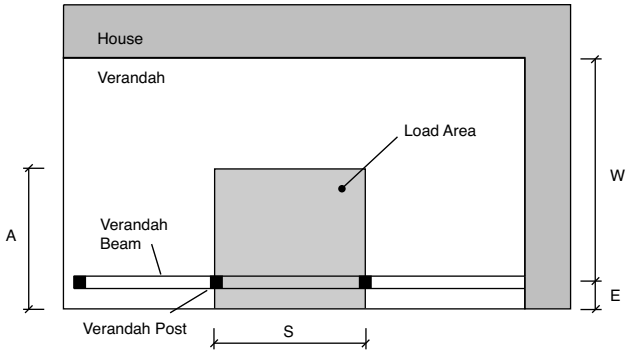
R:\Jobs\2014\35000-35999\35739-14\Drawings & Docs\Verandah\35739-16CS - Duragal Domestic Construction Manual Vol1 Certification 2017.05.31.docxPage 1 of 1

How to use these tables

Contained in the following pages are tables that enable the user to select a DuraGalPlus beam based on a required span or determine the maximum span of a particular size. Outlined below are steps to guide you, along with an example.

1. Select a table with the appropriate:
   - wind category
   - roof pitch, and
   - roof type

2. Determine the width of roof (A) supported by the verandah beam.
   A = W/2 + E (m) see the diagram below.



   Note that trusses are assumed to be supported at the house wall.

3. Determine the span, S, of the beam. S = the largest distance between supports.

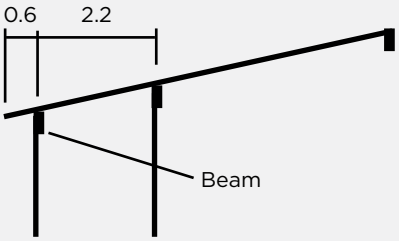
4. Determine if the span is continuous or single:
   Single span...
   one span only, or the variation between spans exceeds 30% of the larger span
   Continuous span...
   two or more spans

5. Select the column with the next largest value to the calculated 'A' dimension.

6. Read down the 'A' column and find the closest larger value to the required span (S) for each size in the left hand column.

7. Select the beam with the least mass/ metre and note the connection loads.

Example



Information

Wind category:	N1
Roof pitch:	22°
Roof type:	Steel sheet
Verandah length:	12m
Number spans:	3

Find beam size?

1. From the wind category, roof pitch, and roof type given use the table on pages 14 and 15. Notice the table is for N3 and below.
2. A = 2.2/2 + 0.6 = 1.7 m
   ...the verandah width divided by two plus the eaves.
3. Verandah beam span, S = 12.0/3 = 4.0 m.
4. Continuous span, as there are 3 equal spans.
5. Select 1.8 m (next largest value after 1.7) Dimension 'A' column for continuous span.
6. From the table...

Size	Span (m)	Mass per metre (kg/m)
150x50x2.0	4.68	6.07
125x75x2.0	4.57	6.07
100x50x2.0	4.25	4.50
90x90x2.0	4.01	4.54

7. Select 100x50x2.0 DuraGalPlus RHS with:
   Downward force on connection = 12.8 kN
   Upward force on connection = 13.7 kN

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	7020	6720	6470	6270	6090	5940	5800	5600	5430	5270
D			*4.24*	*5.42*	*6.52*	*7.58*	*8.59*	*9.57*	*10.5*	*11.3*	*12.0*	*12.7*
U			*6.89*	*8.79*	*10.6*	*12.3*	*13.9*	*15.5*	*17.1*	*18.3*	*19.5*	*20.7*
150x50x5.0RHS	C450L0	14.2	6910	6590	6340	6130	5950	5780	5550	5360	5190	5050
D			*4.18*	*5.31*	*6.39*	*7.41*	*8.39*	*9.32*	*10.1*	*10.8*	*11.5*	*12.2*
U			*6.78*	*8.62*	*10.4*	*12.0*	*13.6*	*15.1*	*16.3*	*17.5*	*18.7*	*19.8*
150x50x4.0RHS	C450L0	11.6	6740	6410	6150	5940	5700	5450	5240	5060	4900	4760
D			*4.07*	*5.17*	*6.20*	*7.18*	*8.04*	*8.79*	*9.50*	*10.2*	*10.9*	*11.5*
U			*6.61*	*8.38*	*10.1*	*11.7*	*13.0*	*14.3*	*15.4*	*16.5*	*17.6*	*18.7*
150x50x3.0RHS	C450L0	8.96	6500	6160	5900	5570	5290	5060	4870	4700	4550	4420
D			*3.93*	*4.96*	*5.94*	*6.73*	*7.46*	*8.16*	*8.83*	*9.47*	*10.1*	*10.7*
U			*6.38*	*8.06*	*9.65*	*10.9*	*12.1*	*13.2*	*14.3*	*15.4*	*16.4*	*17.3*
150x50x2.5RHS	C450L0	7.53	6320	5980	5610	5280	5010	4800	4610	4450	4310	4190
D			*3.82*	*4.82*	*5.65*	*6.38*	*7.07*	*7.74*	*8.36*	*8.97*	*9.55*	*10.1*
U			*6.20*	*7.82*	*9.17*	*10.4*	*11.5*	*12.6*	*13.6*	*14.6*	*15.5*	*16.4*
150x50x2.0RHS	C450L0	6.07	6080	5650	5240	4930	4690	4450	4190	3980	3790	3630
D			*3.68*	*4.55*	*5.28*	*5.96*	*6.61*	*7.17*	*7.60*	*8.02*	*8.40*	*8.78*
U			*5.96*	*7.39*	*8.57*	*9.67*	*10.7*	*11.6*	*12.3*	*13.0*	*13.6*	*14.2*
125x75x6.0RHS	C450L0	16.7	6680	6400	6170	5970	5800	5650	5430	5250	5080	4940
D			*4.04*	*5.16*	*6.22*	*7.22*	*8.18*	*9.11*	*9.85*	*10.6*	*11.3*	*11.9*
U			*6.55*	*8.37*	*10.1*	*11.7*	*13.3*	*14.8*	*16.0*	*17.2*	*18.3*	*19.4*
125x75x5.0RHS	C450L0	14.2	6570	6270	6030	5830	5650	5410	5200	5020	4860	4720
D			3.97	5.05	6.07	7.05	7.97	8.72	9.43	10.1	10.8	11.4
U			6.45	8.20	9.86	11.4	12.9	14.2	15.3	16.4	17.5	18.5
125x75x4.0RHS	C450L0	11.6	6410	6100	5850	5610	5330	5100	4900	4730	4590	4450
D			3.87	4.92	5.89	6.78	7.52	8.22	8.89	9.53	10.2	10.8
U			6.29	7.98	9.56	11.0	12.2	13.3	14.4	15.5	16.5	17.5
125x75x3.0RHS	C450L0	8.96	6180	5850	5520	5200	4940	4720	4540	4390	4250	4130
D			*3.74*	*4.71*	*5.56*	*6.29*	*6.97*	*7.61*	*8.23*	*8.85*	*9.42*	*9.99*
U			*6.06*	*7.65*	*9.03*	*10.2*	*11.3*	*12.3*	*13.4*	*14.4*	*15.3*	*16.2*
125x75x2.5RHS	C450L0	7.53	6000	5640	5230	4930	4680	4480	4300	4150	3970	3800
D			*3.63*	*4.55*	*5.27*	*5.96*	*6.60*	*7.22*	*7.80*	*8.36*	*8.80*	*9.19*
U			*5.89*	*7.38*	*8.55*	*9.67*	*10.7*	*11.7*	*12.7*	*13.6*	*14.3*	*14.9*
125x75x2.0RHS	C450L0	6.07	5770	5270	4890	4560	4220	3940	3710	3520	3360	3210
D			*3.49*	*4.25*	*4.93*	*5.51*	*5.95*	*6.35*	*6.73*	*7.09*	*7.45*	*7.76*
U			*5.66*	*6.89*	*8.00*	*8.95*	*9.66*	*10.3*	*10.9*	*11.5*	*12.1*	*12.6*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.18 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	1.34 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	50 m/s
V_{hs} =	32 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	0.7
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	5440	5100	4730	4450	4230	4050	3890	3760	3640	3540
D			*3.29*	*4.11*	*4.77*	*5.38*	*5.97*	*6.53*	*7.05*	*7.58*	*8.07*	*8.56*
U			*5.34*	*6.67*	*7.73*	*8.73*	*9.68*	*10.6*	*11.4*	*12.3*	*13.1*	*13.9*
100x50x4.0RHS	C450L0	8.49	5310	4840	4490	4230	4020	3840	3690	3570	3460	3360
D			*3.21*	*3.90*	*4.52*	*5.11*	*5.67*	*6.19*	*6.69*	*7.19*	*7.67*	*8.12*
U			*5.21*	*6.33*	*7.34*	*8.30*	*9.20*	*10.0*	*10.9*	*11.7*	*12.4*	*13.2*
100x50x3.5RHS	C450L0	7.53	5150	4680	4340	4090	3880	3710	3570	3450	3340	3250
D			*3.11*	*3.77*	*4.37*	*4.94*	*5.47*	*5.98*	*6.47*	*6.95*	*7.40*	*7.86*
U			*5.05*	*6.12*	*7.10*	*8.02*	*8.88*	*9.71*	*10.5*	*11.3*	*12.0*	*12.8*
100x50x3.0RHS	C450L0	6.6	4980	4520	4200	3950	3750	3590	3450	3330	3230	3130
D			*3.01*	*3.64*	*4.23*	*4.78*	*5.29*	*5.79*	*6.26*	*6.71*	*7.16*	*7.57*
U			*4.89*	*5.91*	*6.87*	*7.75*	*8.58*	*9.39*	*10.2*	*10.9*	*11.6*	*12.3*
100x50x2.5RHS	C450L0	5.56	4730	4290	3990	3750	3560	3410	3280	3160	3060	2980
D			*2.86*	*3.46*	*4.02*	*4.53*	*5.02*	*5.50*	*5.95*	*6.37*	*6.78*	*7.21*
U			*4.64*	*5.61*	*6.52*	*7.36*	*8.15*	*8.92*	*9.65*	*10.3*	*11.0*	*11.7*
100x50x2.0RHS	C450L0	4.50	4430	4020	3730	3510	3340	3190	3070	2960	2870	2750
D			*2.68*	*3.24*	*3.76*	*4.24*	*4.71*	*5.14*	*5.57*	*5.96*	*6.36*	*6.65*
U			*4.35*	*5.26*	*6.10*	*6.89*	*7.65*	*8.35*	*9.04*	*9.68*	*10.3*	*10.8*
100x50x1.6RHS	C450L0	3.64	4140	3760	3490	3220	2980	2790	2630	2490	2380	2270
D			*2.50*	*3.03*	*3.52*	*3.89*	*4.20*	*4.50*	*4.77*	*5.02*	*5.28*	*5.49*
U			*4.06*	*4.92*	*5.71*	*6.32*	*6.82*	*7.30*	*7.74*	*8.14*	*8.56*	*8.91*
100x100x3.0SHS	C450L0	8.96	5710	5360	4970	4680	4440	4250	4090	3950	3820	3710
D			*3.45*	*4.32*	*5.01*	*5.66*	*6.26*	*6.85*	*7.42*	*7.96*	*8.47*	*8.97*
U			*5.60*	*7.01*	*8.13*	*9.18*	*10.2*	*11.1*	*12.0*	*12.9*	*13.7*	*14.6*
100x100x2.5SHS	C450L0	7.53	5540	5080	4710	4430	4210	4030	3810	3620	3450	3300
D			*3.35*	*4.09*	*4.75*	*5.36*	*5.94*	*6.50*	*6.91*	*7.29*	*7.65*	*7.98*
U			*5.43*	*6.64*	*7.70*	*8.69*	*9.64*	*10.5*	*11.2*	*11.8*	*12.4*	*12.9*
100x100x2.0SHS	C450L0	6.07	5220	4740	4360	3970	3670	3430	3230	3070	2920	2800
D			*3.16*	*3.82*	*4.39*	*4.80*	*5.18*	*5.53*	*5.86*	*6.19*	*6.47*	*6.77*
U			*5.12*	*6.20*	*7.13*	*7.79*	*8.40*	*8.97*	*9.51*	*10.0*	*10.5*	*11.0*
90x90x2.0SHS	C450L0	5.45	4690	4260	3950	3660	3380	3160	2980	2830	2690	2580
D			*2.83*	*3.43*	*3.98*	*4.42*	*4.77*	*5.09*	*5.40*	*5.70*	*5.96*	*6.24*
U			*4.60*	*5.57*	*6.46*	*7.18*	*7.74*	*8.27*	*8.77*	*9.25*	*9.68*	*10.1*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.18 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	1.34 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	50 m/s
V_{hs} =	32 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	0.7
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	8740	8370	8070	7810	7590	7400	7170	6800	6470	6190
D			*13.2*	*16.9*	*20.3*	*23.6*	*26.8*	*29.8*	*32.5*	*34.3*	*35.9*	*37.4*
U			*21.4*	*27.4*	*33.0*	*38.3*	*43.4*	*48.4*	*52.8*	*55.6*	*58.2*	*60.7*
150x50x5.0RHS	C450L0	14.2	8600	8210	7900	7640	7410	7070	6660	6310	6010	5750
D			*13.0*	*16.5*	*19.9*	*23.1*	*26.1*	*28.5*	*30.2*	*31.8*	*33.3*	*34.8*
U			*21.1*	*26.8*	*32.3*	*37.5*	*42.4*	*46.2*	*49.0*	*51.6*	*54.0*	*56.4*
150x50x4.0RHS	C450L0	11.6	8390	7990	7660	7400	6880	6430	6050	5740	5470	5230
D			*12.7*	*16.1*	*19.3*	*22.4*	*24.3*	*25.9*	*27.4*	*28.9*	*30.3*	*31.6*
U			*20.6*	*26.1*	*31.3*	*36.3*	*39.4*	*42.1*	*44.5*	*46.9*	*49.2*	*51.3*
150x50x3.0RHS	C450L0	8.96	8100	7680	7230	6580	6090	5690	5360	5080	4840	4630
D			*12.2*	*15.5*	*18.2*	*19.9*	*21.5*	*22.9*	*24.3*	*25.6*	*26.8*	*28.0*
U			*19.9*	*25.1*	*29.6*	*32.3*	*34.9*	*37.2*	*39.4*	*41.5*	*43.5*	*45.4*
150x50x2.5RHS	C450L0	7.53	7870	7440	6630	6050	5590	5220	4890	4590	4330	4100
D			*11.9*	*15.0*	*16.7*	*18.3*	*19.7*	*21.0*	*22.2*	*23.1*	*24.0*	*24.8*
U			*19.3*	*24.3*	*27.1*	*29.7*	*32.0*	*34.1*	*36.0*	*37.5*	*38.9*	*40.2*
150x50x2.0RHS	C450L0	6.07	7140	6020	5250	4680	4240	3890	3600	3350	3140	2950
D			*10.8*	*12.1*	*13.2*	*14.1*	*15.0*	*15.7*	*16.3*	*16.9*	*17.4*	*17.8*
U			*17.5*	*19.7*	*21.5*	*23.0*	*24.3*	*25.4*	*26.5*	*27.4*	*28.2*	*28.9*
125x75x6.0RHS	C450L0	16.7	8330	7970	7680	7440	7230	7040	6880	6530	6220	5950
D			*12.6*	*16.1*	*19.3*	*22.5*	*25.5*	*28.4*	*31.2*	*32.9*	*34.5*	*36.0*
U			*20.4*	*26.1*	*31.4*	*36.5*	*41.4*	*46.0*	*50.6*	*53.4*	*55.9*	*58.4*
125x75x5.0RHS	C450L0	14.2	8190	7820	7520	7270	7050	6790	6400	6060	5770	5520
D			12.4	15.8	18.9	22.0	24.9	27.4	29.0	30.5	32.0	33.4
U			20.1	25.6	30.7	35.7	40.3	44.4	47.1	49.5	51.9	54.2
125x75x4.0RHS	C450L0	11.6	7980	7600	7290	7030	6610	6170	5810	5510	5250	5020
D			12.1	15.3	18.4	21.2	23.3	24.9	26.3	27.8	29.1	30.3
U			19.6	24.9	29.8	34.5	37.8	40.4	42.7	45.0	47.2	49.2
125x75x3.0RHS	C450L0	8.96	7690	7290	6870	6260	5790	5410	5100	4830	4600	4410
D			*11.6*	*14.7*	*17.3*	*18.9*	*20.4*	*21.8*	*23.1*	*24.3*	*25.5*	*26.7*
U			*18.9*	*23.8*	*28.1*	*30.7*	*33.1*	*35.4*	*37.5*	*39.5*	*41.4*	*43.3*
125x75x2.5RHS	C450L0	7.53	7470	6640	5930	5400	4990	4670	4400	4170	3970	3800
D			*11.3*	*13.4*	*14.9*	*16.3*	*17.6*	*18.8*	*19.9*	*21.0*	*22.0*	*23.0*
U			*18.3*	*21.7*	*24.2*	*26.5*	*28.6*	*30.5*	*32.4*	*34.1*	*35.7*	*37.3*
125x75x2.0RHS	C450L0	6.07	6490	5600	5000	4560	4160	3840	3570	3350	3150	2980
D			*9.81*	*11.3*	*12.6*	*13.8*	*14.7*	*15.5*	*16.2*	*16.9*	*17.5*	*18.0*
U			*15.9*	*18.3*	*20.4*	*22.4*	*23.8*	*25.1*	*26.3*	*27.4*	*28.3*	*29.2*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load	Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	= 0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓	
6 =	Dead & Wind Load (0.9G + W_u)↑	= -2.18 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	= 1.34 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)	

Load	
V_{hu} =	50 m/s
V_{hs} =	32 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	0.7
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	6780	6440	6170	5800	5360	5010	4710	4470	4260	4080
D			*10.2*	*13.0*	*15.5*	*17.5*	*18.9*	*20.2*	*21.4*	*22.5*	*23.6*	*24.7*
U			*16.6*	*21.1*	*25.2*	*28.4*	*30.7*	*32.8*	*34.7*	*36.5*	*38.3*	*40.0*
100x50x4.0RHS	C450L0	8.49	6610	6270	5820	5300	4900	4580	4320	4090	3900	3730
D			*9.99*	*12.6*	*14.7*	*16.0*	*17.3*	*18.5*	*19.6*	*20.6*	*21.6*	*22.5*
U			*16.2*	*20.5*	*23.8*	*26.0*	*28.0*	*30.0*	*31.8*	*33.4*	*35.1*	*36.6*
100x50x3.5RHS	C450L0	7.53	6500	6150	5500	5010	4640	4330	4080	3870	3690	3530
D			*9.82*	*12.4*	*13.9*	*15.1*	*16.4*	*17.4*	*18.5*	*19.5*	*20.4*	*21.3*
U			*15.9*	*20.1*	*22.5*	*24.6*	*26.6*	*28.3*	*30.0*	*31.6*	*33.2*	*34.6*
100x50x3.0RHS	C450L0	6.6	6380	5810	5190	4730	4370	4090	3850	3650	3480	3330
D			*9.64*	*11.7*	*13.1*	*14.3*	*15.4*	*16.5*	*17.5*	*18.4*	*19.3*	*20.1*
U			*15.6*	*19.0*	*21.2*	*23.2*	*25.0*	*26.7*	*28.3*	*29.8*	*31.3*	*32.7*
100x50x2.5RHS	C450L0	5.56	6200	5350	4780	4350	4030	3760	3550	3360	3210	3070
D			*9.37*	*10.8*	*12.0*	*13.1*	*14.2*	*15.2*	*16.1*	*16.9*	*17.8*	*18.6*
U			*15.2*	*17.5*	*19.5*	*21.3*	*23.1*	*24.6*	*26.1*	*27.5*	*28.9*	*30.1*
100x50x2.0RHS	C450L0	4.50	5540	4780	4270	3900	3610	3370	3180	3010	2870	2750
D			*8.37*	*9.63*	*10.8*	*11.8*	*12.7*	*13.6*	*14.4*	*15.2*	*15.9*	*16.6*
U			*13.6*	*15.6*	*17.5*	*19.1*	*20.7*	*22.0*	*23.4*	*24.6*	*25.8*	*27.0*
100x50x1.6RHS	C450L0	3.64	4580	3950	3530	3220	2950	2720	2530	2370	2230	2110
D			*6.92*	*7.96*	*8.89*	*9.73*	*10.4*	*11.0*	*11.5*	*11.9*	*12.4*	*12.8*
U			*11.2*	*12.9*	*14.4*	*15.8*	*16.9*	*17.8*	*18.6*	*19.4*	*20.1*	*20.7*
100x100x3.0SHS	C450L0	8.96	7110	6620	5910	5380	4970	4630	4320	4060	3830	3630
D			*10.7*	*13.3*	*14.9*	*16.3*	*17.5*	*18.7*	*19.6*	*20.5*	*21.2*	*21.9*
U			*17.4*	*21.6*	*24.2*	*26.4*	*28.4*	*30.3*	*31.8*	*33.2*	*34.4*	*35.6*
100x100x2.5SHS	C450L0	7.53	6680	5760	5140	4680	4330	4050	3810	3620	3450	3280
D			*10.1*	*11.6*	*12.9*	*14.1*	*15.3*	*16.3*	*17.3*	*18.2*	*19.1*	*19.8*
U			*16.4*	*18.8*	*21.0*	*23.0*	*24.8*	*26.5*	*28.0*	*29.6*	*31.0*	*32.2*
100x100x2.0SHS	C450L0	6.07	5650	4880	4360	3970	3670	3430	3230	3070	2920	2800
D			*8.54*	*9.83*	*11.0*	*12.0*	*12.9*	*13.8*	*14.6*	*15.5*	*16.2*	*16.9*
U			*13.9*	*16.0*	*17.8*	*19.5*	*21.0*	*22.4*	*23.8*	*25.1*	*26.3*	*27.5*
90x90x2.0SHS	C450L0	5.45	5200	4490	4010	3660	3380	3160	2980	2830	2690	2580
D			*7.86*	*9.05*	*10.1*	*11.1*	*11.9*	*12.7*	*13.5*	*14.3*	*14.9*	*15.6*
U			*12.8*	*14.7*	*16.4*	*18.0*	*19.3*	*20.7*	*21.9*	*23.1*	*24.2*	*25.3*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.18 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	1.34 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	50 m/s
V_{hs} =	32 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	0.7
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	5560	5230	4980	4780	4620	4480	4350	4250	4150	4070
D			*5.33*	*6.68*	*7.96*	*9.16*	*10.3*	*11.5*	*12.5*	*13.6*	*14.6*	*15.6*
U			*3.98*	*4.99*	*5.94*	*6.84*	*7.71*	*8.55*	*9.34*	*10.1*	*10.9*	*11.6*
150x50x5.0RHS	C450L0	14.2	5420	5090	4840	4640	4480	4340	4220	4120	4030	3950
D			*5.20*	*6.51*	*7.73*	*8.89*	*10.0*	*11.1*	*12.1*	*13.2*	*14.2*	*15.1*
U			*3.88*	*4.86*	*5.77*	*6.64*	*7.48*	*8.28*	*9.06*	*9.83*	*10.6*	*11.3*
150x50x4.0RHS	C450L0	11.6	5220	4900	4660	4460	4310	4170	4060	3960	3870	3790
D			*5.00*	*6.26*	*7.44*	*8.55*	*9.64*	*10.7*	*11.7*	*12.7*	*13.6*	*14.5*
U			*3.73*	*4.67*	*5.56*	*6.38*	*7.20*	*7.96*	*8.71*	*9.44*	*10.2*	*10.8*
150x50x3.0RHS	C450L0	8.96	4980	4660	4420	4240	4080	3960	3840	3750	3660	3580
D			*4.77*	*5.96*	*7.06*	*8.13*	*9.12*	*10.1*	*11.0*	*12.0*	*12.9*	*13.7*
U			*3.56*	*4.45*	*5.27*	*6.07*	*6.81*	*7.56*	*8.24*	*8.94*	*9.60*	*10.2*
150x50x2.5RHS	C450L0	7.53	4800	4490	4260	4080	3930	3810	3700	3600	3500	3400
D			*4.60*	*5.74*	*6.81*	*7.82*	*8.79*	*9.74*	*10.6*	*11.5*	*12.3*	*13.0*
U			*3.43*	*4.28*	*5.08*	*5.84*	*6.56*	*7.27*	*7.94*	*8.59*	*9.18*	*9.73*
150x50x2.0RHS	C450L0	6.07	4580	4280	4060	3880	3740	3620	3490	3380	3270	3180
D			*4.39*	*5.47*	*6.49*	*7.44*	*8.36*	*9.25*	*10.0*	*10.8*	*11.5*	*12.2*
U			*3.28*	*4.08*	*4.84*	*5.55*	*6.24*	*6.91*	*7.49*	*8.06*	*8.58*	*9.10*
125x75x6.0RHS	C450L0	16.7	5300	4980	4740	4550	4400	4260	4150	4050	3960	3870
D			*5.08*	*6.36*	*7.57*	*8.72*	*9.84*	*10.9*	*11.9*	*12.9*	*13.9*	*14.8*
U			*3.79*	*4.75*	*5.65*	*6.51*	*7.35*	*8.13*	*8.91*	*9.66*	*10.4*	*11.1*
125x75x5.0RHS	C450L0	14.2	5160	4840	4610	4420	4260	4130	4020	3920	3830	3750
D			4.95	6.19	7.36	8.47	9.53	10.6	11.6	12.5	13.5	14.4
U			3.69	4.62	5.50	6.33	7.11	7.88	8.63	9.35	10.0	10.7
125x75x4.0RHS	C450L0	11.6	4970	4660	4430	4240	4090	3970	3860	3760	3680	3600
D			4.76	5.96	7.08	8.13	9.15	10.1	11.1	12.0	12.9	13.8
U			3.56	4.45	5.28	6.07	6.83	7.57	8.29	8.97	9.65	10.3
125x75x3.0RHS	C450L0	8.96	4730	4420	4200	4020	3880	3760	3650	3550	3440	3340
D			*4.53*	*5.65*	*6.71*	*7.71*	*8.68*	*9.61*	*10.5*	*11.3*	*12.1*	*12.8*
U			*3.38*	*4.22*	*5.01*	*5.75*	*6.48*	*7.17*	*7.83*	*8.47*	*9.02*	*9.56*
125x75x2.5RHS	C450L0	7.53	4560	4260	4040	3870	3730	3610	3480	3370	3260	3170
D			*4.37*	*5.44*	*6.45*	*7.42*	*8.34*	*9.23*	*10.0*	*10.8*	*11.5*	*12.2*
U			*3.26*	*4.06*	*4.82*	*5.54*	*6.23*	*6.89*	*7.47*	*8.04*	*8.55*	*9.07*
125x75x2.0RHS	C450L0	6.07	4350	4060	3850	3690	3540	3390	3260	3150	3050	2970
D			*4.17*	*5.19*	*6.15*	*7.07*	*7.92*	*8.66*	*9.37*	*10.1*	*10.7*	*11.4*
U			*3.11*	*3.87*	*4.59*	*5.28*	*5.91*	*6.47*	*7.00*	*7.51*	*8.00*	*8.50*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-1.59 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.13 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 50 m/s
V_{hs} = 32 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.6
$C_{p,n}$ ↓ = 0.7
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4190	3930	3730	3570	3400	3260	3140	3030	2940	2860
D			*4.02*	*5.02*	*5.96*	*6.84*	*7.60*	*8.33*	*9.03*	*9.68*	*10.3*	*11.0*
U			*3.00*	*3.75*	*4.45*	*5.11*	*5.68*	*6.22*	*6.74*	*7.23*	*7.71*	*8.19*
100x50x4.0RHS	C450L0	8.49	4050	3790	3600	3400	3240	3100	2990	2890	2800	2720
D			*3.88*	*4.84*	*5.75*	*6.52*	*7.25*	*7.92*	*8.60*	*9.23*	*9.84*	*10.4*
U			*2.90*	*3.62*	*4.29*	*4.87*	*5.41*	*5.91*	*6.42*	*6.89*	*7.35*	*7.78*
100x50x3.5RHS	C450L0	7.53	3960	3710	3490	3290	3130	3000	2890	2790	2710	2630
D			*3.80*	*4.74*	*5.58*	*6.31*	*7.00*	*7.67*	*8.31*	*8.91*	*9.52*	*10.1*
U			*2.83*	*3.54*	*4.16*	*4.71*	*5.23*	*5.72*	*6.20*	*6.65*	*7.11*	*7.53*
100x50x3.0RHS	C450L0	6.6	3870	3620	3380	3190	3030	2900	2800	2700	2620	2550
D			*3.71*	*4.63*	*5.40*	*6.12*	*6.78*	*7.41*	*8.05*	*8.63*	*9.21*	*9.78*
U			*2.77*	*3.45*	*4.03*	*4.56*	*5.06*	*5.53*	*6.01*	*6.44*	*6.87*	*7.30*
100x50x2.5RHS	C450L0	5.56	3730	3450	3220	3030	2890	2760	2660	2570	2490	2420
D			*3.58*	*4.41*	*5.14*	*5.81*	*6.46*	*7.05*	*7.65*	*8.21*	*8.75*	*9.28*
U			*2.67*	*3.29*	*3.84*	*4.34*	*4.82*	*5.27*	*5.71*	*6.13*	*6.53*	*6.93*
100x50x2.0RHS	C450L0	4.50	3560	3240	3020	2850	2710	2590	2490	2410	2340	2270
D			*3.41*	*4.14*	*4.82*	*5.46*	*6.06*	*6.62*	*7.16*	*7.70*	*8.22*	*8.70*
U			*2.55*	*3.09*	*3.60*	*4.08*	*4.52*	*4.94*	*5.34*	*5.75*	*6.14*	*6.50*
100x50x1.6RHS	C450L0	3.64	3340	3040	2830	2670	2540	2430	2330	2260	2190	2120
D			*3.20*	*3.89*	*4.52*	*5.12*	*5.68*	*6.21*	*6.70*	*7.22*	*7.70*	*8.13*
U			*2.39*	*2.90*	*3.37*	*3.82*	*4.24*	*4.64*	*5.00*	*5.39*	*5.75*	*6.07*
100x100x3.0SHS	C450L0	8.96	4370	4090	3880	3720	3580	3430	3300	3190	3090	3010
D			*4.19*	*5.23*	*6.20*	*7.13*	*8.01*	*8.77*	*9.49*	*10.2*	*10.9*	*11.5*
U			*3.13*	*3.90*	*4.63*	*5.32*	*5.98*	*6.54*	*7.08*	*7.61*	*8.11*	*8.61*
100x100x2.5SHS	C450L0	7.53	4210	3940	3740	3570	3400	3260	3130	3030	2940	2860
D			*4.04*	*5.04*	*5.97*	*6.84*	*7.60*	*8.33*	*9.00*	*9.68*	*10.3*	*11.0*
U			*3.01*	*3.76*	*4.46*	*5.11*	*5.68*	*6.22*	*6.72*	*7.23*	*7.71*	*8.19*
100x100x2.0SHS	C450L0	6.07	4020	3760	3550	3350	3180	3050	2940	2840	2750	2670
D			*3.85*	*4.81*	*5.67*	*6.42*	*7.11*	*7.80*	*8.45*	*9.07*	*9.66*	*10.2*
U			*2.88*	*3.59*	*4.23*	*4.79*	*5.31*	*5.82*	*6.31*	*6.77*	*7.21*	*7.64*
90x90x2.0SHS	C450L0	5.45	3710	3420	3190	3010	2860	2740	2640	2550	2470	2400
D			*3.56*	*4.37*	*5.10*	*5.77*	*6.40*	*7.00*	*7.59*	*8.15*	*8.68*	*9.20*
U			*2.65*	*3.26*	*3.80*	*4.31*	*4.77*	*5.23*	*5.67*	*6.08*	*6.48*	*6.87*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-1.59 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.13 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 50 m/s
V_{hs} = 32 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.6
$C_{p,n}$ ↓ = 0.7
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	6930	6520	6210	5960	5750	5580	5420	5290	5170	5070
D			*16.6*	*20.8*	*24.8*	*28.6*	*32.1*	*35.7*	*39.0*	*42.3*	*45.4*	*48.6*
U			*12.4*	*15.6*	*18.5*	*21.3*	*24.0*	*26.6*	*29.1*	*31.5*	*33.9*	*36.3*
150x50x5.0RHS	C450L0	14.2	6750	6340	6030	5790	5580	5410	5260	5130	5020	4910
D			*16.2*	*20.3*	*24.1*	*27.7*	*31.2*	*34.6*	*37.8*	*41.0*	*44.1*	*47.1*
U			*12.1*	*15.1*	*18.0*	*20.7*	*23.3*	*25.8*	*28.2*	*30.6*	*32.9*	*35.1*
150x50x4.0RHS	C450L0	11.6	6510	6110	5800	5560	5360	5200	5050	4930	4820	4720
D			*15.6*	*19.5*	*23.2*	*26.6*	*30.0*	*33.2*	*36.3*	*39.4*	*42.3*	*45.2*
U			*11.6*	*14.6*	*17.3*	*19.9*	*22.4*	*24.8*	*27.1*	*29.4*	*31.6*	*33.8*
150x50x3.0RHS	C450L0	8.96	6200	5800	5510	5280	5090	4760	4450	4180	3950	3750
D			*14.9*	*18.5*	*22.0*	*25.3*	*28.5*	*30.4*	*32.0*	*33.4*	*34.7*	*35.9*
U			*11.1*	*13.8*	*16.4*	*18.9*	*21.2*	*22.7*	*23.9*	*24.9*	*25.9*	*26.8*
150x50x2.5RHS	C450L0	7.53	5980	5590	5270	4730	4310	3960	3680	3440	3240	3060
D			*14.3*	*17.9*	*21.0*	*22.7*	*24.1*	*25.3*	*26.5*	*27.5*	*28.5*	*29.3*
U			*10.7*	*13.3*	*15.7*	*16.9*	*18.0*	*18.9*	*19.7*	*20.5*	*21.3*	*21.9*
150x50x2.0RHS	C450L0	6.07	5420	4520	3910	3460	3120	2840	2610	2420	2260	2120
D			*13.0*	*14.4*	*15.6*	*16.6*	*17.4*	*18.1*	*18.8*	*19.3*	*19.9*	*20.3*
U			*9.70*	*10.8*	*11.7*	*12.4*	*13.0*	*13.5*	*14.0*	*14.4*	*14.8*	*15.2*
125x75x6.0RHS	C450L0	16.7	6600	6210	5910	5670	5480	5310	5170	5040	4930	4830
D			*15.8*	*19.8*	*23.6*	*27.2*	*30.6*	*33.9*	*37.2*	*40.3*	*43.3*	*46.3*
U			*11.8*	*14.8*	*17.6*	*20.3*	*22.9*	*25.3*	*27.7*	*30.1*	*32.3*	*34.6*
125x75x5.0RHS	C450L0	14.2	6420	6030	5740	5510	5310	5150	5010	4880	4770	4680
D			15.4	19.3	22.9	26.4	29.7	32.9	36.0	39.0	41.9	44.9
U			11.5	14.4	17.1	19.7	22.2	24.6	26.9	29.1	31.3	33.5
125x75x4.0RHS	C450L0	11.6	6190	5800	5520	5290	5100	4940	4800	4690	4580	4480
D			14.8	18.5	22.0	25.4	28.5	31.6	34.5	37.5	40.2	42.9
U			11.1	13.8	16.5	18.9	21.3	23.6	25.8	28.0	30.0	32.1
125x75x3.0RHS	C450L0	8.96	5890	5510	5230	5010	4830	4680	4420	4170	3950	3760
D			*14.1*	*17.6*	*20.9*	*24.0*	*27.0*	*29.9*	*31.8*	*33.3*	*34.7*	*36.0*
U			*10.5*	*13.1*	*15.6*	*17.9*	*20.2*	*22.3*	*23.7*	*24.9*	*25.9*	*26.9*
125x75x2.5RHS	C450L0	7.53	5680	5310	5030	4540	4150	3840	3580	3370	3180	3020
D			*13.6*	*17.0*	*20.1*	*21.8*	*23.2*	*24.5*	*25.7*	*26.9*	*27.9*	*28.9*
U			*10.2*	*12.7*	*15.0*	*16.2*	*17.3*	*18.3*	*19.2*	*20.1*	*20.9*	*21.6*
125x75x2.0RHS	C450L0	6.07	5230	4420	3860	3450	3130	2880	2670	2490	2330	2200
D			*12.5*	*14.1*	*15.4*	*16.5*	*17.5*	*18.4*	*19.2*	*19.9*	*20.5*	*21.1*
U			*9.36*	*10.5*	*11.5*	*12.3*	*13.1*	*13.7*	*14.3*	*14.8*	*15.3*	*15.7*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-1.59 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.13 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	50 m/s
V_{hs} =	32 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	0.7
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	5220	4900	4650	4460	4300	4160	4050	3940	3860	3770
D			*12.5*	*15.7*	*18.6*	*21.4*	*24.0*	*26.6*	*29.1*	*31.5*	*33.9*	*36.1*
U			*9.34*	*11.7*	*13.9*	*16.0*	*17.9*	*19.8*	*21.7*	*23.5*	*25.3*	*27.0*
100x50x4.0RHS	C450L0	8.49	5050	4730	4490	4300	4140	4010	3900	3780	3590	3430
D			*12.1*	*15.1*	*17.9*	*20.6*	*23.1*	*25.6*	*28.0*	*30.2*	*31.5*	*32.9*
U			*9.03*	*11.3*	*13.4*	*15.4*	*17.3*	*19.1*	*20.9*	*22.5*	*23.5*	*24.5*
100x50x3.5RHS	C450L0	7.53	4940	4620	4380	4190	4040	3910	3760	3550	3370	3220
D			*11.8*	*14.8*	*17.5*	*20.1*	*22.6*	*25.0*	*27.0*	*28.4*	*29.6*	*30.9*
U			*8.84*	*11.0*	*13.1*	*15.0*	*16.9*	*18.7*	*20.2*	*21.2*	*22.1*	*23.0*
100x50x3.0RHS	C450L0	6.6	4820	4510	4280	4090	3940	3790	3560	3360	3200	3050
D			*11.5*	*14.4*	*17.1*	*19.6*	*22.0*	*24.2*	*25.6*	*26.8*	*28.1*	*29.2*
U			*8.62*	*10.8*	*12.8*	*14.6*	*16.4*	*18.1*	*19.1*	*20.0*	*21.0*	*21.8*
100x50x2.5RHS	C450L0	5.56	4650	4350	4120	3930	3610	3360	3140	2970	2810	2680
D			*11.1*	*13.9*	*16.5*	*18.8*	*20.2*	*21.5*	*22.6*	*23.7*	*24.7*	*25.7*
U			*8.32*	*10.4*	*12.3*	*14.1*	*15.1*	*16.0*	*16.9*	*17.7*	*18.4*	*19.2*
100x50x2.0RHS	C450L0	4.50	4440	4120	3640	3280	2990	2770	2580	2420	2290	2170
D			*10.6*	*13.2*	*14.5*	*15.7*	*16.7*	*17.7*	*18.5*	*19.3*	*20.1*	*20.8*
U			*7.94*	*9.83*	*10.9*	*11.7*	*12.5*	*13.2*	*13.8*	*14.4*	*15.0*	*15.5*
100x50x1.6RHS	C450L0	3.64	3720	3140	2740	2440	2210	2030	1880	1750	1650	1550
D			*8.91*	*10.0*	*10.9*	*11.7*	*12.4*	*13.0*	*13.5*	*14.0*	*14.5*	*14.9*
U			*6.65*	*7.49*	*8.17*	*8.73*	*9.22*	*9.68*	*10.1*	*10.4*	*10.8*	*11.1*
100x100x3.0SHS	C450L0	8.96	5440	5090	4660	4180	3810	3500	3250	3040	2860	2710
D			*13.0*	*16.3*	*18.6*	*20.0*	*21.3*	*22.4*	*23.4*	*24.3*	*25.1*	*26.0*
U			*9.73*	*12.1*	*13.9*	*15.0*	*15.9*	*16.7*	*17.4*	*18.1*	*18.8*	*19.4*
100x100x2.5SHS	C450L0	7.53	5240	4760	4190	3770	3440	3170	2950	2760	2600	2460
D			*12.6*	*15.2*	*16.7*	*18.1*	*19.2*	*20.3*	*21.2*	*22.0*	*22.8*	*23.6*
U			*9.37*	*11.4*	*12.5*	*13.5*	*14.4*	*15.1*	*15.8*	*16.5*	*17.1*	*17.6*
100x100x2.0SHS	C450L0	6.07	4880	4160	3670	3310	3020	2790	2600	2440	2310	2190
D			*11.7*	*13.3*	*14.7*	*15.9*	*16.9*	*17.8*	*18.7*	*19.5*	*20.3*	*21.0*
U			*8.73*	*9.92*	*10.9*	*11.8*	*12.6*	*13.3*	*14.0*	*14.5*	*15.2*	*15.7*
90x90x2.0SHS	C450L0	5.45	4550	3890	3430	3090	2830	2620	2440	2290	2170	2060
D			*10.9*	*12.4*	*13.7*	*14.8*	*15.8*	*16.7*	*17.5*	*18.3*	*19.1*	*19.7*
U			*8.14*	*9.28*	*10.2*	*11.1*	*11.8*	*12.5*	*13.1*	*13.7*	*14.2*	*14.7*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-1.59 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.13 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	50 m/s
V_{hs} =	32 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	0.7
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d x b x t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	7020	6720	6470	6270	6090	5940	5800	5680	5570	5470
D			*4.24*	*5.42*	*6.52*	*7.58*	*8.59*	*9.57*	*10.5*	*11.4*	*12.3*	*13.2*
U			*4.52*	*5.77*	*6.94*	*8.07*	*9.14*	*10.2*	*11.2*	*12.2*	*13.1*	*14.1*
150x50x5.0RHS	C450L0	14.2	6910	6590	6340	6130	5950	5790	5660	5530	5420	5320
D			*4.18*	*5.31*	*6.39*	*7.41*	*8.39*	*9.33*	*10.3*	*11.1*	*12.0*	*12.9*
U			*4.45*	*5.65*	*6.80*	*7.89*	*8.93*	*9.94*	*10.9*	*11.9*	*12.8*	*13.7*
150x50x4.0RHS	C450L0	11.6	6740	6410	6150	5940	5760	5600	5460	5340	5230	5130
D			*4.07*	*5.17*	*6.20*	*7.18*	*8.12*	*9.03*	*9.90*	*10.8*	*11.6*	*12.4*
U			*4.34*	*5.50*	*6.60*	*7.64*	*8.65*	*9.61*	*10.5*	*11.5*	*12.3*	*13.2*
150x50x3.0RHS	C450L0	8.96	6500	6160	5900	5680	5500	5340	5210	5090	4980	4880
D			*3.93*	*4.96*	*5.94*	*6.87*	*7.76*	*8.61*	*9.45*	*10.3*	*11.0*	*11.8*
U			*4.18*	*5.29*	*6.33*	*7.31*	*8.26*	*9.16*	*10.1*	*10.9*	*11.8*	*12.6*
150x50x2.5RHS	C450L0	7.53	6320	5980	5710	5490	5310	5160	5030	4910	4800	4710
D			*3.82*	*4.82*	*5.75*	*6.64*	*7.49*	*8.32*	*9.12*	*9.89*	*10.6*	*11.4*
U			*4.07*	*5.13*	*6.12*	*7.07*	*7.97*	*8.85*	*9.71*	*10.5*	*11.3*	*12.1*
150x50x2.0RHS	C450L0	6.07	6080	5740	5470	5260	5080	4930	4800	4690	4570	4440
D			*3.68*	*4.63*	*5.51*	*6.36*	*7.17*	*7.95*	*8.70*	*9.45*	*10.1*	*10.7*
U			*3.91*	*4.93*	*5.87*	*6.77*	*7.63*	*8.46*	*9.27*	*10.1*	*10.8*	*11.4*
125x75x6.0RHS	C450L0	16.7	6680	6400	6170	5970	5800	5650	5520	5410	5300	5210
D			*4.04*	*5.16*	*6.22*	*7.22*	*8.18*	*9.11*	*10.0*	*10.9*	*11.7*	*12.6*
U			*4.30*	*5.49*	*6.62*	*7.68*	*8.71*	*9.70*	*10.7*	*11.6*	*12.5*	*13.4*
125x75x5.0RHS	C450L0	14.2	6570	6270	6030	5830	5660	5510	5380	5270	5160	5070
D			3.97	5.05	6.07	7.05	7.98	8.88	9.76	10.6	11.4	12.3
U			4.23	5.38	6.47	7.50	8.50	9.46	10.4	11.3	12.2	13.1
125x75x4.0RHS	C450L0	11.6	6410	6100	5850	5650	5470	5320	5190	5080	4970	4880
D			3.87	4.92	5.89	6.83	7.72	8.58	9.41	10.2	11.0	11.8
U			4.12	5.23	6.27	7.27	8.21	9.13	10.0	10.9	11.7	12.6
125x75x3.0RHS	C450L0	8.96	6180	5850	5600	5400	5220	5080	4950	4830	4730	4640
D			*3.74*	*4.71*	*5.64*	*6.53*	*7.36*	*8.19*	*8.98*	*9.73*	*10.5*	*11.2*
U			*3.98*	*5.02*	*6.01*	*6.95*	*7.84*	*8.72*	*9.56*	*10.4*	*11.2*	*11.9*
125x75x2.5RHS	C450L0	7.53	6000	5670	5420	5220	5050	4900	4770	4660	4560	4430
D			*3.63*	*4.57*	*5.46*	*6.31*	*7.12*	*7.90*	*8.65*	*9.39*	*10.1*	*10.7*
U			*3.86*	*4.86*	*5.81*	*6.72*	*7.58*	*8.41*	*9.21*	*10.00*	*10.8*	*11.4*
125x75x2.0RHS	C450L0	6.07	5770	5450	5200	4990	4830	4680	4560	4360	4150	3970
D			*3.49*	*4.39*	*5.24*	*6.03*	*6.81*	*7.54*	*8.27*	*8.79*	*9.20*	*9.60*
U			*3.71*	*4.68*	*5.58*	*6.42*	*7.25*	*8.03*	*8.80*	*9.35*	*9.79*	*10.2*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-1.43 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	1.34 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 50 m/s
V_{hs} = 32 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 0.7
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	5440	5170	4950	4780	4630	4500	4390	4260	4120	4010
D			*3.29*	*4.17*	*4.99*	*5.78*	*6.53*	*7.25*	*7.96*	*8.58*	*9.13*	*9.70*
U			*3.50*	*4.44*	*5.31*	*6.15*	*6.95*	*7.72*	*8.48*	*9.14*	*9.72*	*10.3*
100x50x4.0RHS	C450L0	8.49	5310	5030	4810	4630	4480	4350	4190	4040	3910	3800
D			*3.21*	*4.05*	*4.85*	*5.60*	*6.32*	*7.01*	*7.60*	*8.14*	*8.67*	*9.19*
U			*3.42*	*4.32*	*5.16*	*5.96*	*6.73*	*7.46*	*8.09*	*8.67*	*9.23*	*9.78*
100x50x3.5RHS	C450L0	7.53	5220	4930	4720	4540	4390	4210	4050	3910	3790	3680
D			*3.16*	*3.97*	*4.76*	*5.49*	*6.19*	*6.79*	*7.34*	*7.88*	*8.40*	*8.90*
U			*3.36*	*4.23*	*5.06*	*5.84*	*6.59*	*7.22*	*7.82*	*8.39*	*8.94*	*9.47*
100x50x3.0RHS	C450L0	6.6	5120	4840	4620	4440	4250	4070	3910	3770	3660	3550
D			*3.09*	*3.90*	*4.65*	*5.37*	*5.99*	*6.56*	*7.09*	*7.60*	*8.11*	*8.58*
U			*3.29*	*4.15*	*4.96*	*5.71*	*6.38*	*6.98*	*7.55*	*8.09*	*8.64*	*9.14*
100x50x2.5RHS	C450L0	5.56	4970	4690	4470	4250	4040	3860	3710	3580	3470	3370
D			*3.00*	*3.78*	*4.50*	*5.14*	*5.70*	*6.22*	*6.73*	*7.21*	*7.69*	*8.15*
U			*3.20*	*4.02*	*4.79*	*5.47*	*6.07*	*6.62*	*7.16*	*7.68*	*8.19*	*8.67*
100x50x2.0RHS	C450L0	4.50	4780	4500	4230	3980	3780	3620	3480	3360	3250	3160
D			*2.89*	*3.63*	*4.26*	*4.81*	*5.33*	*5.84*	*6.31*	*6.77*	*7.20*	*7.64*
U			*3.08*	*3.86*	*4.54*	*5.12*	*5.68*	*6.21*	*6.72*	*7.21*	*7.67*	*8.13*
100x50x1.6RHS	C450L0	3.64	4590	4260	3960	3720	3540	3380	3250	3080	2940	2810
D			*2.77*	*3.43*	*3.99*	*4.50*	*4.99*	*5.45*	*5.89*	*6.21*	*6.52*	*6.79*
U			*2.95*	*3.66*	*4.25*	*4.79*	*5.32*	*5.80*	*6.27*	*6.61*	*6.94*	*7.23*
100x100x3.0SHS	C450L0	8.96	5710	5410	5180	4990	4830	4690	4570	4470	4330	4210
D			*3.45*	*4.36*	*5.22*	*6.03*	*6.81*	*7.56*	*8.29*	*9.01*	*9.60*	*10.2*
U			*3.67*	*4.64*	*5.56*	*6.42*	*7.25*	*8.05*	*8.82*	*9.59*	*10.2*	*10.8*
100x100x2.5SHS	C450L0	7.53	5540	5240	5010	4820	4660	4530	4390	4240	4100	3990
D			*3.35*	*4.22*	*5.05*	*5.83*	*6.57*	*7.30*	*7.96*	*8.54*	*9.09*	*9.65*
U			*3.57*	*4.50*	*5.37*	*6.20*	*7.00*	*7.77*	*8.48*	*9.10*	*9.67*	*10.3*
100x100x2.0SHS	C450L0	6.07	5340	5030	4800	4620	4460	4250	4000	3790	3620	3460
D			*3.23*	*4.05*	*4.84*	*5.59*	*6.29*	*6.85*	*7.25*	*7.64*	*8.02*	*8.37*
U			*3.44*	*4.32*	*5.15*	*5.95*	*6.70*	*7.29*	*7.72*	*8.13*	*8.54*	*8.91*
90x90x2.0SHS	C450L0	5.45	4950	4660	4440	4210	4000	3830	3680	3500	3330	3190
D			*2.99*	*3.76*	*4.47*	*5.09*	*5.64*	*6.17*	*6.67*	*7.05*	*7.38*	*7.71*
U			*3.19*	*4.00*	*4.76*	*5.42*	*6.01*	*6.57*	*7.10*	*7.51*	*7.86*	*8.21*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-1.43 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	1.34 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	50 m/s
V_{hs} =	32 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.1
$C_{p,n}$ ↓ =	0.7
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	8740	8370	8070	7810	7590	7400	7230	7070	6940	6810
D			*13.2*	*16.9*	*20.3*	*23.6*	*26.8*	*29.8*	*32.8*	*35.6*	*38.5*	*41.2*
U			*14.1*	*18.0*	*21.6*	*25.1*	*28.5*	*31.7*	*34.9*	*37.9*	*40.9*	*43.8*
150x50x5.0RHS	C450L0	14.2	0	8210	7900	7640	7410	7220	7050	6890	6760	6630
D			*13.0*	*16.5*	*19.9*	*23.1*	*26.1*	*29.1*	*32.0*	*34.7*	*37.5*	*40.1*
U			*13.8*	*17.6*	*21.2*	*24.6*	*27.8*	*31.0*	*34.0*	*36.9*	*39.9*	*42.7*
150x50x4.0RHS	C450L0	11.6	8390	7990	7660	7400	7170	6980	6800	6640	6320	6040
D			*12.7*	*16.1*	*19.3*	*22.4*	*25.3*	*28.1*	*30.8*	*33.4*	*35.0*	*36.5*
U			*13.5*	*17.1*	*20.5*	*23.8*	*26.9*	*29.9*	*32.8*	*35.6*	*37.3*	*38.9*
150x50x3.0RHS	C450L0	8.96	8100	7680	7350	7080	6640	6170	5780	5450	5160	4910
D			*12.2*	*15.5*	*18.5*	*21.4*	*23.4*	*24.9*	*26.2*	*27.5*	*28.6*	*29.7*
U			*13.0*	*16.5*	*19.7*	*22.8*	*24.9*	*26.5*	*27.9*	*29.2*	*30.4*	*31.6*
150x50x2.5RHS	C450L0	7.53	7870	7450	6880	6200	5670	5250	4890	4590	4330	4100
D			*11.9*	*15.0*	*17.3*	*18.7*	*20.0*	*21.2*	*22.2*	*23.1*	*24.0*	*24.8*
U			*12.7*	*16.0*	*18.4*	*19.9*	*21.3*	*22.5*	*23.6*	*24.6*	*25.5*	*26.4*
150x50x2.0RHS	C450L0	6.07	7140	6020	5250	4680	4240	3890	3600	3350	3140	2950
D			*10.8*	*12.1*	*13.2*	*14.1*	*15.0*	*15.7*	*16.3*	*16.9*	*17.4*	*17.8*
U			*11.5*	*12.9*	*14.1*	*15.1*	*15.9*	*16.7*	*17.4*	*18.0*	*18.5*	*19.0*
125x75x6.0RHS	C450L0	16.7	8330	7970	7680	7440	7230	7040	6880	6740	6610	6490
D			*12.6*	*16.1*	*19.3*	*22.5*	*25.5*	*28.4*	*31.2*	*34.0*	*36.6*	*39.2*
U			*13.4*	*17.1*	*20.6*	*23.9*	*27.1*	*30.2*	*33.2*	*36.1*	*39.0*	*41.8*
125x75x5.0RHS	C450L0	14.2	8190	7820	7520	7270	7050	6870	6710	6560	6430	6310
D			12.4	15.8	18.9	22.0	24.9	27.7	30.4	33.0	35.6	38.1
U			13.2	16.8	20.2	23.4	26.5	29.5	32.4	35.2	37.9	40.6
125x75x4.0RHS	C450L0	11.6	7980	7600	7290	7030	6820	6630	6470	6320	6040	5770
D			12.1	15.3	18.4	21.2	24.0	26.7	29.3	31.8	33.5	34.9
U			12.8	16.3	19.5	22.6	25.6	28.4	31.2	33.9	35.6	37.1
125x75x3.0RHS	C450L0	8.96	7690	7290	6980	6720	6510	6070	5700	5380	5110	4870
D			*11.6*	*14.7*	*17.6*	*20.3*	*23.0*	*24.5*	*25.8*	*27.1*	*28.3*	*29.4*
U			*12.4*	*15.6*	*18.7*	*21.6*	*24.4*	*26.0*	*27.5*	*28.9*	*30.1*	*31.3*
125x75x2.5RHS	C450L0	7.53	7470	7070	6480	5870	5390	5000	4680	4410	4170	3970
D			*11.3*	*14.2*	*16.3*	*17.7*	*19.0*	*20.1*	*21.2*	*22.2*	*23.1*	*24.0*
U			*12.0*	*15.2*	*17.4*	*18.9*	*20.2*	*21.5*	*22.6*	*23.6*	*24.6*	*25.5*
125x75x2.0RHS	C450L0	6.07	6770	5770	5080	4570	4160	3840	3570	3350	3150	2980
D			*10.2*	*11.6*	*12.8*	*13.8*	*14.7*	*15.5*	*16.2*	*16.9*	*17.5*	*18.0*
U			*10.9*	*12.4*	*13.6*	*14.7*	*15.6*	*16.5*	*17.2*	*18.0*	*18.6*	*19.2*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-1.43 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	1.34 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 50 m/s
V_{hs} = 32 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 0.7
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span 900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	6780	6440	6170	5950	5760	5600	5460	5340	5230	5050
D			*10.2*	*13.0*	*15.5*	*18.0*	*20.3*	*22.6*	*24.8*	*26.9*	*29.0*	*30.5*
U			*10.9*	*13.8*	*16.5*	*19.1*	*21.6*	*24.0*	*26.4*	*28.6*	*30.9*	*32.5*
100x50x4.0RHS	C450L0	8.49	6610	6270	5990	5770	5580	5430	5290	5070	4830	4620
D			*9.99*	*12.6*	*15.1*	*17.4*	*19.7*	*21.9*	*24.0*	*25.5*	*26.8*	*27.9*
U			*10.6*	*13.4*	*16.1*	*18.6*	*20.9*	*23.3*	*25.5*	*27.2*	*28.5*	*29.7*
100x50x3.5RHS	C450L0	7.53	6500	6150	5870	5650	5470	5310	5060	4790	4570	4370
D			*9.82*	*12.4*	*14.8*	*17.1*	*19.3*	*21.4*	*22.9*	*24.1*	*25.3*	*26.4*
U			*10.5*	*13.2*	*15.7*	*18.2*	*20.5*	*22.8*	*24.4*	*25.7*	*27.0*	*28.1*
100x50x3.0RHS	C450L0	6.6	6380	6030	5750	5530	5170	4820	4540	4290	4080	3900
D			*9.64*	*12.1*	*14.5*	*16.7*	*18.2*	*19.4*	*20.6*	*21.6*	*22.6*	*23.6*
U			*10.3*	*12.9*	*15.4*	*17.8*	*19.4*	*20.7*	*21.9*	*23.0*	*24.1*	*25.1*
100x50x2.5RHS	C450L0	5.56	6200	5840	5520	5020	4630	4310	4050	3820	3630	3460
D			*9.37*	*11.8*	*13.9*	*15.2*	*16.3*	*17.4*	*18.4*	*19.2*	*20.1*	*20.9*
U			*9.97*	*12.5*	*14.8*	*16.2*	*17.4*	*18.5*	*19.5*	*20.5*	*21.4*	*22.3*
100x50x2.0RHS	C450L0	4.50	5960	5310	4710	4250	3900	3620	3380	3180	3010	2860
D			*9.01*	*10.7*	*11.9*	*12.8*	*13.8*	*14.6*	*15.3*	*16.0*	*16.7*	*17.3*
U			*9.59*	*11.4*	*12.6*	*13.7*	*14.6*	*15.5*	*16.3*	*17.1*	*17.8*	*18.4*
100x50x1.6RHS	C450L0	3.64	4850	4110	3610	3240	2950	2720	2530	2370	2230	2110
D			*7.33*	*8.28*	*9.09*	*9.79*	*10.4*	*11.0*	*11.5*	*11.9*	*12.4*	*12.8*
U			*7.80*	*8.82*	*9.68*	*10.4*	*11.1*	*11.7*	*12.2*	*12.7*	*13.2*	*13.6*
100x100x3.0SHS	C450L0	8.96	7110	6740	6070	5480	5010	4630	4320	4060	3830	3630
D			*10.7*	*13.6*	*15.3*	*16.6*	*17.7*	*18.7*	*19.6*	*20.5*	*21.2*	*21.9*
U			*11.4*	*14.5*	*16.3*	*17.6*	*18.8*	*19.9*	*20.8*	*21.8*	*22.6*	*23.4*
100x100x2.5SHS	C450L0	7.53	6910	6150	5440	4910	4500	4170	3890	3660	3450	3280
D			*10.4*	*12.4*	*13.7*	*14.8*	*15.9*	*16.8*	*17.6*	*18.4*	*19.1*	*19.8*
U			*11.1*	*13.2*	*14.6*	*15.8*	*16.9*	*17.9*	*18.8*	*19.6*	*20.4*	*21.1*
100x100x2.0SHS	C450L0	6.07	6240	5360	4750	4290	3940	3650	3410	3210	3040	2890
D			*9.43*	*10.8*	*12.0*	*13.0*	*13.9*	*14.7*	*15.5*	*16.2*	*16.8*	*17.5*
U			*10.0*	*11.5*	*12.7*	*13.8*	*14.8*	*15.7*	*16.5*	*17.2*	*17.9*	*18.6*
90x90x2.0SHS	C450L0	5.45	5810	4990	4430	4010	3680	3410	3190	3010	2850	2710
D			*8.78*	*10.1*	*11.2*	*12.1*	*13.0*	*13.7*	*14.5*	*15.2*	*15.8*	*16.4*
U			*9.35*	*10.7*	*11.9*	*12.9*	*13.8*	*14.6*	*15.4*	*16.1*	*16.8*	*17.4*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-1.43 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	1.34 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	50 m/s
V_{hs} =	32 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.1
$C_{p,n}$ ↓ =	0.7
Q_1 =	0.25 kPa
Q_2 =	1.1 kN

Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	5560	5230	4980	4780	4620	4480	4350	4250	4150	4070
D			*5.33*	*6.68*	*7.96*	*9.16*	*10.3*	*11.5*	*12.5*	*13.6*	*14.6*	*15.6*
U			*2.10*	*2.64*	*3.14*	*3.61*	*4.07*	*4.52*	*4.93*	*5.36*	*5.75*	*6.15*
150x50x5.0RHS	C450L0	14.2	5420	5090	4840	4640	4480	4340	4220	4120	4030	3950
D			*5.20*	*6.51*	*7.73*	*8.89*	*10.0*	*11.1*	*12.1*	*13.2*	*14.2*	*15.1*
U			*2.05*	*2.57*	*3.05*	*3.51*	*3.95*	*4.37*	*4.79*	*5.19*	*5.59*	*5.97*
150x50x4.0RHS	C450L0	11.6	5220	4900	4660	4460	4310	4170	4060	3960	3870	3790
D			*5.00*	*6.26*	*7.44*	*8.55*	*9.64*	*10.7*	*11.7*	*12.7*	*13.6*	*14.5*
U			*1.97*	*2.47*	*2.94*	*3.37*	*3.80*	*4.20*	*4.60*	*4.99*	*5.36*	*5.73*
150x50x3.0RHS	C450L0	8.96	4980	4660	4420	4240	4080	3960	3840	3750	3660	3580
D			*4.77*	*5.96*	*7.06*	*8.13*	*9.12*	*10.1*	*11.0*	*12.0*	*12.9*	*13.7*
U			*1.88*	*2.35*	*2.78*	*3.21*	*3.60*	*3.99*	*4.35*	*4.73*	*5.07*	*5.41*
150x50x2.5RHS	C450L0	7.53	4800	4490	4260	4080	3930	3810	3700	3600	3500	3400
D			*4.60*	*5.74*	*6.81*	*7.82*	*8.79*	*9.74*	*10.6*	*11.5*	*12.3*	*13.0*
U			*1.81*	*2.26*	*2.68*	*3.08*	*3.47*	*3.84*	*4.20*	*4.54*	*4.85*	*5.14*
150x50x2.0RHS	C450L0	6.07	4580	4280	4060	3880	3740	3620	3490	3380	3270	3180
D			*4.39*	*5.47*	*6.49*	*7.44*	*8.36*	*9.25*	*10.0*	*10.8*	*11.5*	*12.2*
U			*1.73*	*2.16*	*2.56*	*2.93*	*3.30*	*3.65*	*3.96*	*4.26*	*4.53*	*4.81*
125x75x6.0RHS	C450L0	16.7	5300	4980	4740	4550	4400	4260	4150	4050	3960	3870
D			*5.08*	*6.36*	*7.57*	*8.72*	*9.84*	*10.9*	*11.9*	*12.9*	*13.9*	*14.8*
U			*2.00*	*2.51*	*2.99*	*3.44*	*3.88*	*4.29*	*4.71*	*5.10*	*5.49*	*5.85*
125x75x5.0RHS	C450L0	14.2	5160	4840	4610	4420	4260	4130	4020	3920	3830	3750
D			4.95	6.19	7.36	8.47	9.53	10.6	11.6	12.5	13.5	14.4
U			1.95	2.44	2.90	3.34	3.76	4.16	4.56	4.94	5.31	5.67
125x75x4.0RHS	C450L0	11.6	4970	4660	4430	4240	4090	3970	3860	3760	3680	3600
D			4.76	5.96	7.08	8.13	9.15	10.1	11.1	12.0	12.9	13.8
U			1.88	2.35	2.79	3.21	3.61	4.00	4.38	4.74	5.10	5.44
125x75x3.0RHS	C450L0	8.96	4730	4420	4200	4020	3880	3760	3650	3550	3440	3340
D			*4.53*	*5.65*	*6.71*	*7.71*	*8.68*	*9.61*	*10.5*	*11.3*	*12.1*	*12.8*
U			*1.79*	*2.23*	*2.65*	*3.04*	*3.42*	*3.79*	*4.14*	*4.47*	*4.77*	*5.05*
125x75x2.5RHS	C450L0	7.53	4560	4260	4040	3870	3730	3610	3480	3370	3260	3170
D			*4.37*	*5.44*	*6.45*	*7.42*	*8.34*	*9.23*	*10.0*	*10.8*	*11.5*	*12.2*
U			*1.72*	*2.15*	*2.55*	*2.93*	*3.29*	*3.64*	*3.95*	*4.25*	*4.52*	*4.79*
125x75x2.0RHS	C450L0	6.07	4350	4060	3850	3690	3540	3390	3260	3150	3050	2970
D			*4.17*	*5.19*	*6.15*	*7.07*	*7.92*	*8.66*	*9.37*	*10.1*	*10.7*	*11.4*
U			*1.64*	*2.05*	*2.43*	*2.79*	*3.12*	*3.42*	*3.70*	*3.97*	*4.23*	*4.49*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-0.84 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.13 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 50 m/s
V_{hs} = 32 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 0.7
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4190	3930	3730	3570	3400	3260	3140	3030	2940	2860
D			*4.02*	*5.02*	*5.96*	*6.84*	*7.60*	*8.33*	*9.03*	*9.68*	*10.3*	*11.0*
U			*1.58*	*1.98*	*2.35*	*2.70*	*3.00*	*3.29*	*3.56*	*3.82*	*4.07*	*4.32*
100x50x4.0RHS	C450L0	8.49	4050	3790	3600	3400	3240	3100	2990	2890	2800	2720
D			*3.88*	*4.84*	*5.75*	*6.52*	*7.25*	*7.92*	*8.60*	*9.23*	*9.84*	*10.4*
U			*1.53*	*1.91*	*2.27*	*2.57*	*2.86*	*3.12*	*3.39*	*3.64*	*3.88*	*4.11*
100x50x3.5RHS	C450L0	7.53	3960	3710	3490	3290	3130	3000	2890	2790	2710	2630
D			*3.80*	*4.74*	*5.58*	*6.31*	*7.00*	*7.67*	*8.31*	*8.91*	*9.52*	*10.1*
U			*1.50*	*1.87*	*2.20*	*2.49*	*2.76*	*3.02*	*3.28*	*3.52*	*3.76*	*3.98*
100x50x3.0RHS	C450L0	6.6	3870	3620	3380	3190	3030	2900	2800	2700	2620	2550
D			*3.71*	*4.63*	*5.40*	*6.12*	*6.78*	*7.41*	*8.05*	*8.63*	*9.21*	*9.78*
U			*1.46*	*1.82*	*2.13*	*2.41*	*2.67*	*2.92*	*3.18*	*3.40*	*3.63*	*3.86*
100x50x2.5RHS	C450L0	5.56	3730	3450	3220	3030	2890	2760	2660	2570	2490	2420
D			*3.58*	*4.41*	*5.14*	*5.81*	*6.46*	*7.05*	*7.65*	*8.21*	*8.75*	*9.28*
U			*1.41*	*1.74*	*2.03*	*2.29*	*2.55*	*2.78*	*3.02*	*3.24*	*3.45*	*3.66*
100x50x2.0RHS	C450L0	4.50	3560	3240	3020	2850	2710	2590	2490	2410	2340	2270
D			*3.41*	*4.14*	*4.82*	*5.46*	*6.06*	*6.62*	*7.16*	*7.70*	*8.22*	*8.70*
U			*1.35*	*1.63*	*1.90*	*2.15*	*2.39*	*2.61*	*2.82*	*3.04*	*3.24*	*3.43*
100x50x1.6RHS	C450L0	3.64	3340	3040	2830	2670	2540	2430	2330	2260	2190	2120
D			*3.20*	*3.89*	*4.52*	*5.12*	*5.68*	*6.21*	*6.70*	*7.22*	*7.70*	*8.13*
U			*1.26*	*1.53*	*1.78*	*2.02*	*2.24*	*2.45*	*2.64*	*2.85*	*3.04*	*3.21*
100x100x3.0SHS	C450L0	8.96	4370	4090	3880	3720	3580	3430	3300	3190	3090	3010
D			*4.19*	*5.23*	*6.20*	*7.13*	*8.01*	*8.77*	*9.49*	*10.2*	*10.9*	*11.5*
U			*1.65*	*2.06*	*2.44*	*2.81*	*3.16*	*3.46*	*3.74*	*4.02*	*4.28*	*4.55*
100x100x2.5SHS	C450L0	7.53	4210	3940	3740	3570	3400	3260	3130	3030	2940	2860
D			*4.04*	*5.04*	*5.97*	*6.84*	*7.60*	*8.33*	*9.00*	*9.68*	*10.3*	*11.0*
U			*1.59*	*1.99*	*2.36*	*2.70*	*3.00*	*3.29*	*3.55*	*3.82*	*4.07*	*4.32*
100x100x2.0SHS	C450L0	6.07	4020	3760	3550	3350	3180	3050	2940	2840	2750	2670
D			*3.85*	*4.81*	*5.67*	*6.42*	*7.11*	*7.80*	*8.45*	*9.07*	*9.66*	*10.2*
U			*1.52*	*1.90*	*2.24*	*2.53*	*2.80*	*3.07*	*3.33*	*3.58*	*3.81*	*4.04*
90x90x2.0SHS	C450L0	5.45	3710	3420	3190	3010	2860	2740	2640	2550	2470	2400
D			*3.56*	*4.37*	*5.10*	*5.77*	*6.40*	*7.00*	*7.59*	*8.15*	*8.68*	*9.20*
U			*1.40*	*1.72*	*2.01*	*2.28*	*2.52*	*2.76*	*2.99*	*3.21*	*3.42*	*3.63*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-0.84 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.13 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 50 m/s
V_{hs} = 32 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 0.7
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	6930	6520	6210	5960	5750	5580	5420	5290	5170	5070
D			*16.6*	*20.8*	*24.8*	*28.6*	*32.1*	*35.7*	*39.0*	*42.3*	*45.4*	*48.6*
U			*6.55*	*8.22*	*9.78*	*11.3*	*12.7*	*14.1*	*15.4*	*16.7*	*17.9*	*19.2*
150x50x5.0RHS	C450L0	14.2	6750	6340	6030	5790	5580	5410	5260	5130	5020	4910
D			*16.2*	*20.3*	*24.1*	*27.7*	*31.2*	*34.6*	*37.8*	*41.0*	*44.1*	*47.1*
U			*6.38*	*7.99*	*9.50*	*10.9*	*12.3*	*13.6*	*14.9*	*16.2*	*17.4*	*18.6*
150x50x4.0RHS	C450L0	11.6	6510	6110	5800	5560	5360	5200	5050	4930	4820	4720
D			*15.6*	*19.5*	*23.2*	*26.6*	*30.0*	*33.2*	*36.3*	*39.4*	*42.3*	*45.2*
U			*6.15*	*7.70*	*9.14*	*10.5*	*11.8*	*13.1*	*14.3*	*15.5*	*16.7*	*17.8*
150x50x3.0RHS	C450L0	8.96	6200	5800	5510	5280	5090	4760	4450	4180	3950	3750
D			*14.9*	*18.5*	*22.0*	*25.3*	*28.5*	*30.4*	*32.0*	*33.4*	*34.7*	*35.9*
U			*5.86*	*7.31*	*8.68*	*9.98*	*11.2*	*12.0*	*12.6*	*13.2*	*13.7*	*14.2*
150x50x2.5RHS	C450L0	7.53	5980	5590	5270	4730	4310	3960	3680	3440	3240	3060
D			*14.3*	*17.9*	*21.0*	*22.7*	*24.1*	*25.3*	*26.5*	*27.5*	*28.5*	*29.3*
U			*5.65*	*7.04*	*8.30*	*8.94*	*9.50*	*9.98*	*10.4*	*10.8*	*11.2*	*11.6*
150x50x2.0RHS	C450L0	6.07	5420	4520	3910	3460	3120	2840	2610	2420	2260	2120
D			*13.0*	*14.4*	*15.6*	*16.6*	*17.4*	*18.1*	*18.8*	*19.3*	*19.9*	*20.3*
U			*5.12*	*5.70*	*6.16*	*6.54*	*6.88*	*7.16*	*7.40*	*7.62*	*7.83*	*8.01*
125x75x6.0RHS	C450L0	16.7	6600	6210	5910	5670	5480	5310	5170	5040	4930	4830
D			*15.8*	*19.8*	*23.6*	*27.2*	*30.6*	*33.9*	*37.2*	*40.3*	*43.3*	*46.3*
U			*6.24*	*7.82*	*9.31*	*10.7*	*12.1*	*13.4*	*14.7*	*15.9*	*17.1*	*18.3*
125x75x5.0RHS	C450L0	14.2	6420	6030	5740	5510	5310	5150	5010	4880	4770	4680
D			15.4	19.3	22.9	26.4	29.7	32.9	36.0	39.0	41.9	44.9
U			6.07	7.60	9.04	10.4	11.7	13.0	14.2	15.4	16.5	17.7
125x75x4.0RHS	C450L0	11.6	6190	5800	5520	5290	5100	4940	4800	4690	4580	4480
D			14.8	18.5	22.0	25.4	28.5	31.6	34.5	37.5	40.2	42.9
U			5.85	7.31	8.69	10.00	11.2	12.4	13.6	14.8	15.9	16.9
125x75x3.0RHS	C450L0	8.96	5890	5510	5230	5010	4830	4680	4420	4170	3950	3760
D			*14.1*	*17.6*	*20.9*	*24.0*	*27.0*	*29.9*	*31.8*	*33.3*	*34.7*	*36.0*
U			*5.57*	*6.94*	*8.24*	*9.47*	*10.7*	*11.8*	*12.5*	*13.1*	*13.7*	*14.2*
125x75x2.5RHS	C450L0	7.53	5680	5310	5030	4540	4150	3840	3580	3370	3180	3020
D			*13.6*	*17.0*	*20.1*	*21.8*	*23.2*	*24.5*	*25.7*	*26.9*	*27.9*	*28.9*
U			*5.37*	*6.69*	*7.92*	*8.58*	*9.15*	*9.68*	*10.1*	*10.6*	*11.0*	*11.4*
125x75x2.0RHS	C450L0	6.07	5230	4420	3860	3450	3130	2880	2670	2490	2330	2200
D			*12.5*	*14.1*	*15.4*	*16.5*	*17.5*	*18.4*	*19.2*	*19.9*	*20.5*	*21.1*
U			*4.94*	*5.57*	*6.08*	*6.52*	*6.90*	*7.26*	*7.57*	*7.84*	*8.07*	*8.32*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-0.84 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.13 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 50 m/s
V_{hs} = 32 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 0.7
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	5220	4900	4650	4460	4300	4160	4050	3940	3860	3770
D			*12.5*	*15.7*	*18.6*	*21.4*	*24.0*	*26.6*	*29.1*	*31.5*	*33.9*	*36.1*
U			*4.93*	*6.17*	*7.32*	*8.43*	*9.48*	*10.5*	*11.5*	*12.4*	*13.4*	*14.3*
100x50x4.0RHS	C450L0	8.49	5050	4730	4490	4300	4140	4010	3900	3800	3710	3640
D			*12.1*	*15.1*	*17.9*	*20.6*	*23.1*	*25.6*	*28.0*	*30.4*	*32.6*	*34.9*
U			*4.77*	*5.96*	*7.07*	*8.13*	*9.13*	*10.1*	*11.1*	*12.0*	*12.9*	*13.8*
100x50x3.5RHS	C450L0	7.53	4940	4620	4380	4190	4040	3910	3800	3710	3620	3530
D			*11.8*	*14.8*	*17.5*	*20.1*	*22.6*	*25.0*	*27.3*	*29.6*	*31.8*	*33.8*
U			*4.67*	*5.82*	*6.90*	*7.92*	*8.91*	*9.85*	*10.8*	*11.7*	*12.5*	*13.3*
100x50x3.0RHS	C450L0	6.6	4820	4510	4280	4090	3940	3790	3560	3360	3200	3050
D			*11.5*	*14.4*	*17.1*	*19.6*	*22.0*	*24.2*	*25.6*	*26.8*	*28.1*	*29.2*
U			*4.55*	*5.68*	*6.74*	*7.73*	*8.69*	*9.55*	*10.1*	*10.6*	*11.1*	*11.5*
100x50x2.5RHS	C450L0	5.56	4650	4350	4120	3930	3610	3360	3140	2970	2810	2680
D			*11.1*	*13.9*	*16.5*	*18.8*	*20.2*	*21.5*	*22.6*	*23.7*	*24.7*	*25.7*
U			*4.39*	*5.48*	*6.49*	*7.43*	*7.96*	*8.47*	*8.90*	*9.36*	*9.74*	*10.1*
100x50x2.0RHS	C450L0	4.50	4440	4120	3640	3280	2990	2770	2580	2420	2290	2170
D			*10.6*	*13.2*	*14.5*	*15.7*	*16.7*	*17.7*	*18.5*	*19.3*	*20.1*	*20.8*
U			*4.20*	*5.19*	*5.73*	*6.20*	*6.59*	*6.98*	*7.31*	*7.62*	*7.93*	*8.20*
100x50x1.6RHS	C450L0	3.64	3720	3140	2740	2440	2210	2030	1880	1750	1650	1550
D			*8.91*	*10.0*	*10.9*	*11.7*	*12.4*	*13.0*	*13.5*	*14.0*	*14.5*	*14.9*
U			*3.52*	*3.96*	*4.32*	*4.61*	*4.87*	*5.12*	*5.33*	*5.51*	*5.72*	*5.86*
100x100x3.0SHS	C450L0	8.96	5440	5090	4660	4180	3810	3500	3250	3040	2860	2710
D			*13.0*	*16.3*	*18.6*	*20.0*	*21.3*	*22.4*	*23.4*	*24.3*	*25.1*	*26.0*
U			*5.14*	*6.41*	*7.34*	*7.90*	*8.40*	*8.82*	*9.21*	*9.58*	*9.91*	*10.2*
100x100x2.5SHS	C450L0	7.53	5240	4760	4190	3770	3440	3170	2950	2760	2600	2460
D			*12.6*	*15.2*	*16.7*	*18.1*	*19.2*	*20.3*	*21.2*	*22.0*	*22.8*	*23.6*
U			*4.95*	*6.00*	*6.60*	*7.13*	*7.59*	*7.99*	*8.36*	*8.69*	*9.01*	*9.30*
100x100x2.0SHS	C450L0	6.07	4880	4160	3670	3310	3020	2790	2600	2440	2310	2190
D			*11.7*	*13.3*	*14.7*	*15.9*	*16.9*	*17.8*	*18.7*	*19.5*	*20.3*	*21.0*
U			*4.61*	*5.24*	*5.78*	*6.26*	*6.66*	*7.03*	*7.37*	*7.69*	*8.00*	*8.28*
90x90x2.0SHS	C450L0	5.45	4550	3890	3430	3090	2830	2620	2440	2290	2170	2060
D			*10.9*	*12.4*	*13.7*	*14.8*	*15.8*	*16.7*	*17.5*	*18.3*	*19.1*	*19.7*
U			*4.30*	*4.90*	*5.40*	*5.84*	*6.24*	*6.60*	*6.92*	*7.21*	*7.52*	*7.79*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-0.84 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.13 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	50 m/s
V_{hs} =	32 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.1
$C_{p,n}$ ↓ =	0.7
Q_1 =	0.25 kPa
Q_2 =	1.1 kN

Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	7020	6660	6180	5820	5530	5290	5080	4910	4760	4620
	D		*8.33*	*10.5*	*12.2*	*13.8*	*15.3*	*16.7*	*18.1*	*19.4*	*20.7*	*21.9*
	U		*10.6*	*13.4*	*15.5*	*17.6*	*19.5*	*21.3*	*23.0*	*24.7*	*26.3*	*27.9*
150x50x5.0RHS	C450L0	14.2	6910	6380	5920	5570	5290	5060	4870	4700	4550	4420
	D		*8.20*	*10.1*	*11.7*	*13.2*	*14.7*	*16.0*	*17.3*	*18.6*	*19.8*	*21.0*
	U		*10.4*	*12.8*	*14.9*	*16.8*	*18.6*	*20.4*	*22.0*	*23.6*	*25.2*	*26.7*
150x50x4.0RHS	C450L0	11.6	6630	6020	5590	5260	5000	4780	4600	4440	4300	4180
	D		*7.87*	*9.53*	*11.1*	*12.5*	*13.8*	*15.1*	*16.4*	*17.6*	*18.7*	*19.8*
	U		*10.0*	*12.1*	*14.1*	*15.9*	*17.6*	*19.2*	*20.8*	*22.3*	*23.8*	*25.2*
150x50x3.0RHS	C450L0	8.96	6150	5590	5190	4880	4640	4440	4260	4090	3900	3730
	D		*7.30*	*8.85*	*10.3*	*11.6*	*12.8*	*14.1*	*15.2*	*16.2*	*17.0*	*17.7*
	U		*9.28*	*11.2*	*13.0*	*14.7*	*16.3*	*17.9*	*19.3*	*20.6*	*21.6*	*22.5*
150x50x2.5RHS	C450L0	7.53	5830	5300	4920	4630	4390	4200	3960	3760	3580	3430
	D		*6.92*	*8.39*	*9.73*	*11.0*	*12.2*	*13.3*	*14.1*	*14.9*	*15.6*	*16.3*
	U		*8.79*	*10.7*	*12.4*	*14.0*	*15.5*	*16.9*	*17.9*	*18.9*	*19.8*	*20.7*
150x50x2.0RHS	C450L0	6.07	5450	4950	4540	4140	3830	3580	3380	3200	3050	2920
	D		*6.47*	*7.83*	*8.98*	*9.83*	*10.6*	*11.3*	*12.0*	*12.7*	*13.3*	*13.9*
	U		*8.22*	*9.96*	*11.4*	*12.5*	*13.5*	*14.4*	*15.3*	*16.1*	*16.9*	*17.6*
125x75x6.0RHS	C450L0	16.7	6680	6240	5790	5450	5180	4950	4760	4600	4460	4330
	D		*7.93*	*9.87*	*11.5*	*12.9*	*14.3*	*15.7*	*16.9*	*18.2*	*19.4*	*20.6*
	U		*10.1*	*12.6*	*14.6*	*16.4*	*18.2*	*19.9*	*21.5*	*23.1*	*24.7*	*26.1*
125x75x5.0RHS	C450L0	14.2	6570	5970	5540	5220	4950	4740	4560	4400	4260	4140
	D		7.80	9.45	11.0	12.4	13.7	15.0	16.2	17.4	18.5	19.7
	U		9.91	12.0	13.9	15.7	17.4	19.1	20.6	22.1	23.6	25.0
125x75x4.0RHS	C450L0	11.6	6200	5630	5230	4920	4670	4470	4300	4150	4020	3900
	D		7.36	8.91	10.3	11.7	12.9	14.1	15.3	16.4	17.5	18.5
	U		9.35	11.3	13.1	14.8	16.4	18.0	19.5	20.9	22.2	23.5
125x75x3.0RHS	C450L0	8.96	5740	5220	4840	4560	4330	4140	3980	3840	3710	3550
	D		*6.81*	*8.26*	*9.57*	*10.8*	*12.0*	*13.1*	*14.2*	*15.2*	*16.1*	*16.9*
	U		*8.66*	*10.5*	*12.2*	*13.8*	*15.2*	*16.7*	*18.0*	*19.3*	*20.5*	*21.4*
125x75x2.5RHS	C450L0	7.53	5440	4940	4590	4320	4020	3760	3540	3360	3200	3060
	D		*6.46*	*7.82*	*9.08*	*10.3*	*11.1*	*11.9*	*12.6*	*13.3*	*13.9*	*14.5*
	U		*8.21*	*9.94*	*11.5*	*13.0*	*14.1*	*15.1*	*16.0*	*16.9*	*17.7*	*18.5*
125x75x2.0RHS	C450L0	6.07	5080	4500	4020	3670	3390	3170	2990	2830	2700	2590
	D		*6.03*	*7.12*	*7.95*	*8.71*	*9.39*	*10.0*	*10.6*	*11.2*	*11.8*	*12.3*
	U		*7.66*	*9.05*	*10.1*	*11.1*	*11.9*	*12.8*	*13.5*	*14.2*	*14.9*	*15.6*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-3.35 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.64 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 61 m/s
V_{hs} = 39 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.6
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4920	4470	4150	3900	3710	3550	3410	3290	3190	3100
D			*5.84*	*7.07*	*8.21*	*9.26*	*10.3*	*11.2*	*12.1*	*13.0*	*13.9*	*14.7*
U			*7.42*	*8.99*	*10.4*	*11.8*	*13.1*	*14.3*	*15.4*	*16.5*	*17.6*	*18.7*
100x50x4.0RHS	C450L0	8.49	4670	4240	3940	3710	3520	3370	3240	3130	3030	2940
D			*5.54*	*6.71*	*7.79*	*8.81*	*9.75*	*10.7*	*11.5*	*12.4*	*13.2*	*14.0*
U			*7.04*	*8.53*	*9.91*	*11.2*	*12.4*	*13.6*	*14.7*	*15.7*	*16.8*	*17.7*
100x50x3.5RHS	C450L0	7.53	4510	4100	3810	3580	3400	3260	3130	3020	2930	2840
D			*5.35*	*6.49*	*7.54*	*8.50*	*9.42*	*10.3*	*11.1*	*11.9*	*12.8*	*13.5*
U			*6.80*	*8.25*	*9.58*	*10.8*	*12.0*	*13.1*	*14.2*	*15.2*	*16.2*	*17.1*
100x50x3.0RHS	C450L0	6.6	4360	3960	3680	3460	3290	3140	3020	2920	2800	2680
D			*5.17*	*6.27*	*7.28*	*8.21*	*9.11*	*9.94*	*10.8*	*11.6*	*12.2*	*12.7*
U			*6.58*	*7.96*	*9.25*	*10.4*	*11.6*	*12.6*	*13.7*	*14.7*	*15.5*	*16.2*
100x50x2.5RHS	C450L0	5.56	4140	3760	3490	3290	3120	2990	2860	2710	2580	2470
D			*4.91*	*5.95*	*6.90*	*7.81*	*8.64*	*9.46*	*10.2*	*10.7*	*11.2*	*11.7*
U			*6.25*	*7.56*	*8.77*	*9.93*	*11.0*	*12.0*	*12.9*	*13.6*	*14.3*	*14.9*
100x50x2.0RHS	C450L0	4.50	3880	3530	3270	3080	2900	2710	2560	2430	2310	2210
D			*4.61*	*5.59*	*6.47*	*7.31*	*8.03*	*8.58*	*9.12*	*9.61*	*10.1*	*10.5*
U			*5.85*	*7.10*	*8.22*	*9.29*	*10.2*	*10.9*	*11.6*	*12.2*	*12.8*	*13.3*
100x50x1.6RHS	C450L0	3.64	3630	3180	2840	2590	2400	2250	2120	2010	1910	1830
D			*4.31*	*5.03*	*5.62*	*6.15*	*6.65*	*7.12*	*7.55*	*7.95*	*8.31*	*8.69*
U			*5.48*	*6.40*	*7.14*	*7.81*	*8.45*	*9.05*	*9.59*	*10.1*	*10.6*	*11.0*
100x100x3.0SHS	C450L0	8.96	5170	4690	4360	4100	3900	3730	3520	3340	3180	3050
D			*6.14*	*7.42*	*8.62*	*9.73*	*10.8*	*11.8*	*12.5*	*13.2*	*13.8*	*14.5*
U			*7.80*	*9.43*	*11.0*	*12.4*	*13.7*	*15.0*	*15.9*	*16.8*	*17.6*	*18.4*
100x100x2.5SHS	C450L0	7.53	4900	4450	4130	3770	3480	3260	3070	2910	2770	2660
D			*5.82*	*7.04*	*8.17*	*8.95*	*9.64*	*10.3*	*10.9*	*11.5*	*12.1*	*12.6*
U			*7.39*	*8.95*	*10.4*	*11.4*	*12.2*	*13.1*	*13.9*	*14.6*	*15.3*	*16.1*
100x100x2.0SHS	C450L0	6.07	4540	3920	3500	3190	2960	2760	2600	2470	2350	2250
D			*5.39*	*6.20*	*6.92*	*7.57*	*8.20*	*8.74*	*9.26*	*9.77*	*10.2*	*10.7*
U			*6.85*	*7.88*	*8.80*	*9.62*	*10.4*	*11.1*	*11.8*	*12.4*	*13.0*	*13.6*
90x90x2.0SHS	C450L0	5.45	4110	3610	3230	2940	2720	2550	2400	2280	2170	2080
D			*4.88*	*5.71*	*6.39*	*6.98*	*7.53*	*8.07*	*8.55*	*9.02*	*9.44*	*9.87*
U			*6.20*	*7.26*	*8.12*	*8.87*	*9.57*	*10.3*	*10.9*	*11.5*	*12.0*	*12.6*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load	Value
5 =	Dead & Live Load $(1.2G + 1.5Q_1)\downarrow$	= 0.668 kPa
8 =	Dead & Person Load $(1.2G + 1.5Q_2)\downarrow$	
6 =	Dead & Wind Load $(0.9G + W_u)\uparrow$	= -3.35 kPa
9 =	Dead & Wind Load $(1.2G + W_u)\downarrow$	= 2.64 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)	

Load	
V_{hu} =	61 m/s
V_{hs} =	39 m/s
G =	0.244 kPa
$C_{p,n}\uparrow$ =	-1.6
$C_{p,n}\downarrow$ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN

Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	8740	8370	7780	7080	6550	6120	5760	5460	5200	4980
D			*25.9*	*33.1*	*38.5*	*42.0*	*45.3*	*48.4*	*51.3*	*54.0*	*56.6*	*59.1*
U			*33.0*	*42.1*	*48.9*	*53.4*	*57.6*	*61.5*	*65.2*	*68.6*	*71.9*	*75.1*
150x50x5.0RHS	C450L0	14.2	8600	8100	7220	6580	6080	5680	5350	5070	4830	4630
D			*25.5*	*32.0*	*35.7*	*39.0*	*42.1*	*44.9*	*47.6*	*50.1*	*52.5*	*55.0*
U			*32.4*	*40.7*	*45.4*	*49.6*	*53.5*	*57.1*	*60.5*	*63.7*	*66.8*	*69.8*
150x50x4.0RHS	C450L0	11.6	8390	7350	6560	5980	5530	5170	4870	4620	4400	4210
D			*24.9*	*29.1*	*32.4*	*35.5*	*38.3*	*40.9*	*43.4*	*45.7*	*47.9*	*50.0*
U			*31.6*	*37.0*	*41.2*	*45.1*	*48.7*	*52.0*	*55.1*	*58.1*	*60.8*	*63.5*
150x50x3.0RHS	C450L0	8.96	7280	6230	5500	4960	4540	4200	3920	3680	3480	3300
D			*21.6*	*24.6*	*27.2*	*29.4*	*31.4*	*33.2*	*34.9*	*36.4*	*37.9*	*39.2*
U			*27.5*	*31.3*	*34.6*	*37.4*	*39.9*	*42.2*	*44.3*	*46.3*	*48.1*	*49.8*
150x50x2.5RHS	C450L0	7.53	6270	5300	4640	4150	3770	3460	3210	3000	2820	2660
D			*18.6*	*21.0*	*22.9*	*24.6*	*26.1*	*27.4*	*28.6*	*29.7*	*30.7*	*31.6*
U			*23.6*	*26.6*	*29.2*	*31.3*	*33.2*	*34.8*	*36.3*	*37.7*	*39.0*	*40.1*
150x50x2.0RHS	C450L0	6.07	4740	3940	3390	2990	2690	2440	2240	2070	1930	1810
D			*14.1*	*15.6*	*16.8*	*17.7*	*18.6*	*19.3*	*19.9*	*20.5*	*21.0*	*21.5*
U			*17.9*	*19.8*	*21.3*	*22.6*	*23.7*	*24.5*	*25.3*	*26.0*	*26.7*	*27.3*
125x75x6.0RHS	C450L0	16.7	8330	7970	7480	6810	6290	5880	5540	5250	5000	4780
D			*24.7*	*31.5*	*37.0*	*40.4*	*43.5*	*46.5*	*49.3*	*51.9*	*54.4*	*56.7*
U			*31.4*	*40.1*	*47.0*	*51.4*	*55.3*	*59.1*	*62.7*	*66.0*	*69.1*	*72.1*
125x75x5.0RHS	C450L0	14.2	8190	7780	6930	6320	5840	5460	5140	4870	4640	4440
D			24.3	30.8	34.3	37.5	40.4	43.2	45.8	48.2	50.5	52.7
U			30.9	39.1	43.6	47.7	51.4	54.9	58.2	61.2	64.2	67.0
125x75x4.0RHS	C450L0	11.6	7980	7060	6300	5740	5310	4960	4670	4430	4210	4020
D			23.7	27.9	31.2	34.1	36.8	39.2	41.6	43.8	45.8	47.7
U			30.1	35.5	39.6	43.3	46.7	49.9	52.8	55.7	58.2	60.6
125x75x3.0RHS	C450L0	8.96	7140	6130	5440	4920	4520	4190	3920	3690	3500	3330
D			*21.2*	*24.3*	*26.9*	*29.2*	*31.3*	*33.2*	*34.9*	*36.5*	*38.1*	*39.5*
U			*26.9*	*30.8*	*34.2*	*37.1*	*39.8*	*42.1*	*44.3*	*46.4*	*48.4*	*50.2*
125x75x2.5RHS	C450L0	7.53	5930	5050	4450	4010	3660	3390	3150	2960	2790	2640
D			*17.6*	*20.0*	*22.0*	*23.8*	*25.3*	*26.8*	*28.0*	*29.3*	*30.4*	*31.3*
U			*22.4*	*25.4*	*28.0*	*30.2*	*32.2*	*34.1*	*35.6*	*37.2*	*38.6*	*39.8*
125x75x2.0RHS	C450L0	6.07	4620	3880	3380	3020	2730	2500	2310	2150	2020	1900
D			*13.7*	*15.4*	*16.7*	*17.9*	*18.9*	*19.8*	*20.6*	*21.3*	*22.0*	*22.6*
U			*17.4*	*19.5*	*21.2*	*22.8*	*24.0*	*25.1*	*26.1*	*27.0*	*27.9*	*28.7*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-3.35 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.64 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 61 m/s
V_{hs} = 39 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.6
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d x b x t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span 900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	6590	5720	5110	4660	4310	4020	3790	3600	3430	3280
D			*19.6*	*22.6*	*25.3*	*27.7*	*29.8*	*31.8*	*33.7*	*35.6*	*37.3*	*38.9*
U			*24.9*	*28.8*	*32.1*	*35.1*	*37.9*	*40.4*	*42.9*	*45.3*	*47.4*	*49.5*
100x50x4.0RHS	C450L0	8.49	6070	5240	4670	4260	3940	3690	3470	3290	3140	3000
D			*18.0*	*20.7*	*23.1*	*25.3*	*27.3*	*29.2*	*30.9*	*32.5*	*34.2*	*35.6*
U			*22.9*	*26.3*	*29.4*	*32.1*	*34.7*	*37.1*	*39.3*	*41.4*	*43.4*	*45.3*
100x50x3.5RHS	C450L0	7.53	5730	4950	4420	4030	3730	3490	3290	3120	2970	2840
D			*17.0*	*19.6*	*21.9*	*23.9*	*25.8*	*27.6*	*29.3*	*30.9*	*32.3*	*33.7*
U			*21.6*	*24.9*	*27.8*	*30.4*	*32.8*	*35.1*	*37.2*	*39.2*	*41.1*	*42.8*
100x50x3.0RHS	C450L0	6.6	5400	4670	4170	3800	3520	3290	3100	2940	2800	2680
D			*16.0*	*18.5*	*20.6*	*22.6*	*24.4*	*26.0*	*27.6*	*29.1*	*30.5*	*31.8*
U			*20.4*	*23.5*	*26.2*	*28.7*	*31.0*	*33.1*	*35.1*	*37.0*	*38.7*	*40.4*
100x50x2.5RHS	C450L0	5.56	4970	4300	3840	3500	3210	2980	2790	2630	2490	2370
D			*14.7*	*17.0*	*19.0*	*20.8*	*22.2*	*23.6*	*24.8*	*26.0*	*27.1*	*28.1*
U			*18.7*	*21.6*	*24.1*	*26.4*	*28.2*	*30.0*	*31.6*	*33.1*	*34.4*	*35.8*
100x50x2.0RHS	C450L0	4.50	4300	3660	3220	2890	2640	2440	2270	2120	2000	1900
D			*12.8*	*14.5*	*15.9*	*17.2*	*18.3*	*19.3*	*20.2*	*21.0*	*21.8*	*22.6*
U			*16.2*	*18.4*	*20.2*	*21.8*	*23.2*	*24.5*	*25.7*	*26.6*	*27.7*	*28.7*
100x50x1.6RHS	C450L0	3.64	3280	2750	2390	2130	1930	1770	1630	1520	1420	1340
D			*9.73*	*10.9*	*11.8*	*12.6*	*13.4*	*14.0*	*14.5*	*15.0*	*15.4*	*15.9*
U			*12.4*	*13.8*	*15.0*	*16.1*	*17.0*	*17.8*	*18.4*	*19.1*	*19.6*	*20.2*
100x100x3.0SHS	C450L0	8.96	5540	4690	4100	3670	3330	3060	2840	2650	2490	2350
D			*16.4*	*18.6*	*20.3*	*21.8*	*23.1*	*24.2*	*25.3*	*26.2*	*27.1*	*27.9*
U			*20.9*	*23.6*	*25.8*	*27.7*	*29.3*	*30.8*	*32.1*	*33.3*	*34.4*	*35.4*
100x100x2.5SHS	C450L0	7.53	4960	4210	3700	3310	3020	2780	2580	2410	2270	2150
D			*14.7*	*16.7*	*18.3*	*19.6*	*20.9*	*22.0*	*23.0*	*23.8*	*24.7*	*25.5*
U			*18.7*	*21.2*	*23.3*	*25.0*	*26.6*	*28.0*	*29.2*	*30.3*	*31.4*	*32.4*
100x100x2.0SHS	C450L0	6.07	4340	3690	3250	2920	2660	2460	2290	2140	2020	1910
D			*12.9*	*14.6*	*16.1*	*17.3*	*18.4*	*19.5*	*20.4*	*21.2*	*22.0*	*22.7*
U			*16.4*	*18.6*	*20.4*	*22.0*	*23.4*	*24.7*	*25.9*	*26.9*	*27.9*	*28.8*
90x90x2.0SHS	C450L0	5.45	4050	3450	3040	2730	2500	2310	2150	2020	1900	1800
D			*12.0*	*13.6*	*15.0*	*16.2*	*17.3*	*18.3*	*19.1*	*20.0*	*20.7*	*21.4*
U			*15.3*	*17.3*	*19.1*	*20.6*	*22.0*	*23.2*	*24.3*	*25.4*	*26.3*	*27.2*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-3.35 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.64 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	61 m/s
V_{hs} =	39 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN

Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	5560	5230	4980	4780	4620	4480	4350	4250	4150	4070
D			*8.57*	*10.7*	*12.8*	*14.7*	*16.6*	*18.4*	*20.1*	*21.8*	*23.4*	*25.1*
U			*6.91*	*8.67*	*10.3*	*11.9*	*13.4*	*14.8*	*16.2*	*17.6*	*18.9*	*20.2*
150x50x5.0RHS	C450L0	14.2	5420	5090	4840	4640	4480	4340	4220	4120	4030	3950
D			*8.35*	*10.5*	*12.4*	*14.3*	*16.1*	*17.8*	*19.5*	*21.2*	*22.8*	*24.3*
U			*6.74*	*8.44*	*10.0*	*11.5*	*13.0*	*14.4*	*15.7*	*17.1*	*18.4*	*19.6*
150x50x4.0RHS	C450L0	11.6	5220	4900	4660	4460	4310	4170	4060	3960	3870	3790
D			*8.04*	*10.1*	*12.0*	*13.7*	*15.5*	*17.1*	*18.8*	*20.3*	*21.9*	*23.4*
U			*6.49*	*8.12*	*9.65*	*11.1*	*12.5*	*13.8*	*15.1*	*16.4*	*17.6*	*18.8*
150x50x3.0RHS	C450L0	8.96	4980	4660	4420	4240	4080	3960	3840	3750	3660	3580
D			*7.67*	*9.57*	*11.4*	*13.1*	*14.7*	*16.3*	*17.8*	*19.3*	*20.7*	*22.1*
U			*6.19*	*7.72*	*9.16*	*10.5*	*11.8*	*13.1*	*14.3*	*15.5*	*16.7*	*17.8*
150x50x2.5RHS	C450L0	7.53	4800	4490	4260	4080	3930	3810	3700	3600	3500	3370
D			*7.40*	*9.22*	*10.9*	*12.6*	*14.1*	*15.7*	*17.1*	*18.5*	*19.8*	*20.8*
U			*5.97*	*7.44*	*8.83*	*10.1*	*11.4*	*12.6*	*13.8*	*14.9*	*16.0*	*16.8*
150x50x2.0RHS	C450L0	6.07	4580	4280	4060	3880	3740	3520	3320	3150	3000	2880
D			*7.06*	*8.79*	*10.4*	*12.0*	*13.4*	*14.5*	*15.3*	*16.2*	*16.9*	*17.8*
U			*5.69*	*7.09*	*8.41*	*9.65*	*10.8*	*11.7*	*12.4*	*13.1*	*13.7*	*14.3*
125x75x6.0RHS	C450L0	16.7	5300	4980	4740	4550	4400	4260	4150	4050	3960	3870
D			*8.17*	*10.2*	*12.2*	*14.0*	*15.8*	*17.5*	*19.2*	*20.8*	*22.4*	*23.9*
U			*6.59*	*8.25*	*9.82*	*11.3*	*12.8*	*14.1*	*15.5*	*16.8*	*18.0*	*19.2*
125x75x5.0RHS	C450L0	14.2	5160	4840	4610	4420	4260	4130	4020	3920	3830	3750
D			7.95	9.94	11.8	13.6	15.3	17.0	18.6	20.1	21.6	23.1
U			6.41	8.02	9.55	11.0	12.4	13.7	15.0	16.2	17.5	18.6
125x75x4.0RHS	C450L0	11.6	4970	4660	4430	4240	4090	3970	3860	3760	3680	3600
D			7.66	9.57	11.4	13.1	14.7	16.3	17.8	19.3	20.8	22.2
U			6.18	7.72	9.18	10.5	11.9	13.2	14.4	15.6	16.8	17.9
125x75x3.0RHS	C450L0	8.96	4730	4420	4200	4020	3880	3760	3650	3550	3440	3340
D			*7.29*	*9.08*	*10.8*	*12.4*	*14.0*	*15.5*	*16.9*	*18.2*	*19.4*	*20.6*
U			*5.88*	*7.33*	*8.70*	*9.99*	*11.3*	*12.5*	*13.6*	*14.7*	*15.7*	*16.6*
125x75x2.5RHS	C450L0	7.53	4560	4260	4040	3870	3730	3610	3470	3300	3140	3010
D			*7.03*	*8.75*	*10.4*	*11.9*	*13.4*	*14.8*	*16.0*	*16.9*	*17.7*	*18.6*
U			*5.67*	*7.06*	*8.37*	*9.62*	*10.8*	*12.0*	*12.9*	*13.7*	*14.3*	*15.0*
125x75x2.0RHS	C450L0	6.07	4350	4060	3850	3590	3330	3110	2940	2790	2660	2550
D			*6.70*	*8.34*	*9.89*	*11.1*	*12.0*	*12.8*	*13.6*	*14.3*	*15.0*	*15.7*
U			*5.41*	*6.73*	*7.98*	*8.92*	*9.66*	*10.3*	*11.0*	*11.6*	*12.1*	*12.7*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.76 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.42 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	61 m/s
V_{hs} =	39 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4190	3930	3730	3570	3400	3260	3140	3030	2940	2860
D			*6.46*	*8.07*	*9.58*	*11.0*	*12.2*	*13.4*	*14.5*	*15.6*	*16.6*	*17.6*
U			*5.21*	*6.51*	*7.73*	*8.87*	*9.86*	*10.8*	*11.7*	*12.6*	*13.4*	*14.2*
100x50x4.0RHS	C450L0	8.49	4050	3790	3600	3400	3240	3100	2990	2890	2800	2720
D			*6.24*	*7.79*	*9.25*	*10.5*	*11.6*	*12.7*	*13.8*	*14.8*	*15.8*	*16.8*
U			*5.03*	*6.28*	*7.46*	*8.45*	*9.40*	*10.3*	*11.1*	*12.0*	*12.8*	*13.5*
100x50x3.5RHS	C450L0	7.53	3960	3710	3490	3290	3130	3000	2890	2790	2710	2630
D			*6.10*	*7.62*	*8.96*	*10.1*	*11.3*	*12.3*	*13.4*	*14.3*	*15.3*	*16.2*
U			*4.92*	*6.15*	*7.23*	*8.18*	*9.08*	*9.94*	*10.8*	*11.6*	*12.4*	*13.1*
100x50x3.0RHS	C450L0	6.6	3870	3620	3380	3190	3030	2900	2800	2700	2620	2550
D			*5.96*	*7.44*	*8.68*	*9.83*	*10.9*	*11.9*	*12.9*	*13.9*	*14.8*	*15.7*
U			*4.81*	*6.00*	*7.00*	*7.93*	*8.79*	*9.61*	*10.4*	*11.2*	*11.9*	*12.7*
100x50x2.5RHS	C450L0	5.56	3730	3450	3220	3030	2890	2760	2660	2570	2490	2420
D			*5.75*	*7.09*	*8.27*	*9.34*	*10.4*	*11.3*	*12.3*	*13.2*	*14.1*	*14.9*
U			*4.64*	*5.72*	*6.67*	*7.53*	*8.38*	*9.15*	*9.92*	*10.6*	*11.3*	*12.0*
100x50x2.0RHS	C450L0	4.50	3560	3240	3020	2850	2710	2590	2490	2390	2280	2180
D			*5.49*	*6.66*	*7.76*	*8.78*	*9.74*	*10.6*	*11.5*	*12.3*	*12.9*	*13.4*
U			*4.42*	*5.37*	*6.26*	*7.08*	*7.86*	*8.58*	*9.29*	*9.90*	*10.4*	*10.8*
100x50x1.6RHS	C450L0	3.64	3340	3040	2790	2550	2360	2210	2090	1980	1890	1810
D			*5.15*	*6.25*	*7.17*	*7.86*	*8.49*	*9.08*	*9.66*	*10.2*	*10.7*	*11.2*
U			*4.15*	*5.04*	*5.78*	*6.34*	*6.84*	*7.33*	*7.79*	*8.20*	*8.61*	*9.00*
100x100x3.0SHS	C450L0	8.96	4370	4090	3880	3720	3580	3430	3300	3190	3090	2990
D			*6.73*	*8.40*	*9.96*	*11.5*	*12.9*	*14.1*	*15.3*	*16.4*	*17.5*	*18.4*
U			*5.43*	*6.78*	*8.04*	*9.25*	*10.4*	*11.4*	*12.3*	*13.2*	*14.1*	*14.9*
100x100x2.5SHS	C450L0	7.53	4210	3940	3740	3570	3400	3190	3010	2860	2730	2610
D			*6.49*	*8.09*	*9.60*	*11.0*	*12.2*	*13.1*	*13.9*	*14.7*	*15.4*	*16.1*
U			*5.23*	*6.53*	*7.75*	*8.87*	*9.86*	*10.6*	*11.2*	*11.8*	*12.4*	*13.0*
100x100x2.0SHS	C450L0	6.07	4020	3760	3420	3130	2900	2710	2560	2430	2320	2220
D			*6.19*	*7.73*	*8.78*	*9.65*	*10.4*	*11.1*	*11.8*	*12.5*	*13.1*	*13.7*
U			*5.00*	*6.23*	*7.08*	*7.78*	*8.41*	*8.98*	*9.55*	*10.1*	*10.6*	*11.0*
90x90x2.0SHS	C450L0	5.45	3710	3420	3160	2890	2670	2500	2360	2240	2140	2050
D			*5.72*	*7.03*	*8.12*	*8.91*	*9.60*	*10.3*	*10.9*	*11.5*	*12.1*	*12.6*
U			*4.61*	*5.67*	*6.55*	*7.18*	*7.74*	*8.29*	*8.80*	*9.28*	*9.75*	*10.2*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.76 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.42 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	61 m/s
V_{hs} =	39 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN

Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	6930	6520	6210	5960	5750	5580	5420	5290	5070	4860
D			*26.7*	*33.5*	*39.9*	*45.9*	*51.7*	*57.3*	*62.6*	*67.9*	*71.6*	*74.9*
U			*21.5*	*27.0*	*32.2*	*37.0*	*41.7*	*46.2*	*50.5*	*54.8*	*57.8*	*60.4*
150x50x5.0RHS	C450L0	14.2	6750	6340	6030	5790	5580	5410	5210	4950	4720	4520
D			*26.0*	*32.6*	*38.7*	*44.6*	*50.2*	*55.6*	*60.2*	*63.6*	*66.7*	*69.6*
U			*21.0*	*26.3*	*31.2*	*36.0*	*40.5*	*44.8*	*48.6*	*51.3*	*53.8*	*56.2*
150x50x4.0RHS	C450L0	11.6	6510	6110	5800	5310	4890	4550	4270	4030	3820	3640
D			*25.1*	*31.4*	*37.2*	*40.9*	*44.0*	*46.7*	*49.3*	*51.7*	*54.0*	*56.1*
U			*20.2*	*25.3*	*30.0*	*33.0*	*35.5*	*37.7*	*39.8*	*41.7*	*43.5*	*45.2*
150x50x3.0RHS	C450L0	8.96	6200	5390	4750	4270	3900	3600	3350	3150	2970	2810
D			*23.9*	*27.7*	*30.5*	*32.9*	*35.1*	*37.0*	*38.7*	*40.4*	*42.0*	*43.3*
U			*19.3*	*22.3*	*24.6*	*26.5*	*28.3*	*29.8*	*31.2*	*32.6*	*33.8*	*34.9*
150x50x2.5RHS	C450L0	7.53	5390	4530	3950	3520	3190	2920	2710	2520	2360	2220
D			*20.8*	*23.3*	*25.4*	*27.1*	*28.7*	*30.0*	*31.3*	*32.4*	*33.3*	*34.2*
U			*16.7*	*18.8*	*20.5*	*21.9*	*23.1*	*24.2*	*25.3*	*26.1*	*26.9*	*27.6*
150x50x2.0RHS	C450L0	6.07	4010	3300	2830	2490	2220	2010	1840	1700	1580	1480
D			*15.4*	*16.9*	*18.2*	*19.2*	*20.0*	*20.6*	*21.3*	*21.8*	*22.3*	*22.8*
U			*12.5*	*13.7*	*14.7*	*15.5*	*16.1*	*16.7*	*17.2*	*17.6*	*18.0*	*18.4*
125x75x6.0RHS	C450L0	16.7	6600	6210	5910	5670	5480	5280	4960	4690	4460	4260
D			*25.4*	*31.9*	*37.9*	*43.7*	*49.3*	*54.2*	*57.3*	*60.2*	*63.0*	*65.6*
U			*20.5*	*25.7*	*30.6*	*35.2*	*39.7*	*43.8*	*46.2*	*48.6*	*50.8*	*53.0*
125x75x5.0RHS	C450L0	14.2	6420	6030	5740	5510	5230	4870	4580	4320	4110	3920
D			24.7	31.0	36.9	42.5	47.0	50.0	52.9	55.5	58.1	60.4
U			19.9	25.0	29.7	34.2	37.9	40.4	42.7	44.7	46.8	48.7
125x75x4.0RHS	C450L0	11.6	6190	5800	5520	5080	4670	4350	4070	3850	3650	3480
D			23.8	29.8	35.4	39.1	42.0	44.7	47.0	49.4	51.6	53.6
U			19.2	24.0	28.6	31.6	33.9	36.0	37.9	39.9	41.6	43.3
125x75x3.0RHS	C450L0	8.96	5890	5330	4710	4260	3900	3620	3380	3180	3000	2850
D			*22.7*	*27.4*	*30.2*	*32.8*	*35.1*	*37.2*	*39.1*	*40.8*	*42.4*	*43.9*
U			*18.3*	*22.1*	*24.4*	*26.5*	*28.3*	*30.0*	*31.5*	*32.9*	*34.2*	*35.4*
125x75x2.5RHS	C450L0	7.53	5130	4360	3830	3440	3140	2890	2690	2520	2370	2240
D			*19.8*	*22.4*	*24.6*	*26.5*	*28.2*	*29.7*	*31.1*	*32.4*	*33.5*	*34.5*
U			*15.9*	*18.1*	*19.8*	*21.4*	*22.8*	*23.9*	*25.1*	*26.1*	*27.0*	*27.8*
125x75x2.0RHS	C450L0	6.07	3950	3310	2870	2550	2300	2100	1940	1800	1680	1580
D			*15.2*	*17.0*	*18.4*	*19.6*	*20.7*	*21.6*	*22.4*	*23.1*	*23.7*	*24.3*
U			*12.3*	*13.7*	*14.9*	*15.8*	*16.7*	*17.4*	*18.1*	*18.6*	*19.1*	*19.6*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.76 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.42 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	61 m/s
V_{hs} =	39 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

Roof - masonry tiles and ceiling - external
Roof pitch - up to 20 degrees
C2

DuraGal Plus

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	5220	4900	4650	4460	4200	3930	3710	3520	3360	3220
D			*20.1*	*25.2*	*29.9*	*34.4*	*37.8*	*40.4*	*42.9*	*45.2*	*47.5*	*49.6*
U			*16.2*	*20.3*	*24.1*	*27.7*	*30.5*	*32.6*	*34.6*	*36.5*	*38.3*	*40.0*
100x50x4.0RHS	C450L0	8.49	5050	4730	4490	4160	3850	3610	3400	3230	3080	2950
D			*19.5*	*24.3*	*28.8*	*32.1*	*34.6*	*37.1*	*39.3*	*41.5*	*43.5*	*45.5*
U			*15.7*	*19.6*	*23.3*	*25.9*	*27.9*	*29.9*	*31.7*	*33.5*	*35.1*	*36.7*
100x50x3.5RHS	C450L0	7.53	4940	4620	4310	3940	3650	3420	3220	3060	2920	2800
D			*19.0*	*23.7*	*27.7*	*30.4*	*32.8*	*35.1*	*37.2*	*39.3*	*41.2*	*43.1*
U			*15.4*	*19.1*	*22.3*	*24.5*	*26.5*	*28.3*	*30.0*	*31.7*	*33.3*	*34.8*
100x50x3.0RHS	C450L0	6.6	4820	4250	3780	3430	3160	2940	2760	2600	2470	2350
D			*18.6*	*21.8*	*24.3*	*26.4*	*28.4*	*30.2*	*31.9*	*33.4*	*34.9*	*36.2*
U			*15.0*	*17.6*	*19.6*	*21.3*	*22.9*	*24.4*	*25.7*	*26.9*	*28.1*	*29.2*
100x50x2.5RHS	C450L0	5.56	4420	3780	3350	3030	2780	2570	2410	2270	2140	2040
D			*17.0*	*19.4*	*21.5*	*23.3*	*25.0*	*26.4*	*27.9*	*29.1*	*30.2*	*31.4*
U			*13.7*	*15.7*	*17.3*	*18.8*	*20.2*	*21.3*	*22.5*	*23.5*	*24.4*	*25.4*
100x50x2.0RHS	C450L0	4.50	3710	3150	2760	2470	2250	2080	1930	1800	1700	1610
D			*14.3*	*16.2*	*17.7*	*19.0*	*20.2*	*21.4*	*22.3*	*23.1*	*24.0*	*24.8*
U			*11.5*	*13.1*	*14.3*	*15.4*	*16.3*	*17.2*	*18.0*	*18.6*	*19.4*	*20.0*
100x50x1.6RHS	C450L0	3.64	2800	2340	2030	1800	1620	1480	1360	1270	1180	1110
D			*10.8*	*12.0*	*13.0*	*13.9*	*14.6*	*15.2*	*15.7*	*16.3*	*16.7*	*17.1*
U			*8.70*	*9.70*	*10.5*	*11.2*	*11.7*	*12.3*	*12.7*	*13.2*	*13.4*	*13.8*
100x100x3.0SHS	C450L0	8.96	4760	4010	3490	3110	2820	2580	2390	2230	2090	1970
D			*18.3*	*20.6*	*22.4*	*24.0*	*25.3*	*26.5*	*27.6*	*28.6*	*29.5*	*30.4*
U			*14.8*	*16.6*	*18.1*	*19.3*	*20.4*	*21.4*	*22.3*	*23.1*	*23.8*	*24.5*
100x100x2.5SHS	C450L0	7.53	4280	3610	3160	2820	2560	2360	2180	2040	1910	1810
D			*16.5*	*18.5*	*20.3*	*21.7*	*23.0*	*24.2*	*25.2*	*26.2*	*27.0*	*27.9*
U			*13.3*	*15.0*	*16.4*	*17.5*	*18.6*	*19.6*	*20.3*	*21.1*	*21.8*	*22.5*
100x100x2.0SHS	C450L0	6.07	3750	3180	2790	2500	2270	2090	1950	1820	1710	1620
D			*14.4*	*16.3*	*17.9*	*19.3*	*20.4*	*21.5*	*22.5*	*23.4*	*24.2*	*25.0*
U			*11.7*	*13.2*	*14.4*	*15.5*	*16.5*	*17.3*	*18.2*	*18.9*	*19.5*	*20.1*
90x90x2.0SHS	C450L0	5.45	3500	2970	2610	2340	2140	1970	1830	1720	1620	1530
D			*13.5*	*15.3*	*16.8*	*18.0*	*19.2*	*20.2*	*21.1*	*22.1*	*22.9*	*23.6*
U			*10.9*	*12.3*	*13.5*	*14.5*	*15.5*	*16.3*	*17.1*	*17.8*	*18.5*	*19.0*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.76 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.42 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 61 m/s
V_{hs} = 39 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.6
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	7020	6720	6470	6270	6090	5940	5760	5560	5390	5230
			8.33	*10.6*	*12.8*	*14.9*	*16.9*	*18.8*	*20.5*	*22.0*	*23.5*	*24.8*
			7.06	*9.02*	*10.8*	*12.6*	*14.3*	*15.9*	*17.4*	*18.6*	*19.9*	*21.0*
150x50x5.0RHS	C450L0	14.2	6910	6590	6340	6130	5950	5740	5520	5330	5160	5010
			8.20	*10.4*	*12.5*	*14.6*	*16.5*	*18.2*	*19.7*	*21.1*	*22.5*	*23.8*
			6.95	*8.84*	*10.6*	*12.3*	*14.0*	*15.4*	*16.7*	*17.9*	*19.0*	*20.2*
150x50x4.0RHS	C450L0	11.6	6740	6410	6150	5940	5660	5420	5210	5030	4870	4690
			8.00	*10.1*	*12.2*	*14.1*	*15.7*	*17.2*	*18.6*	*19.9*	*21.2*	*22.3*
			6.78	*8.60*	*10.3*	*12.0*	*13.3*	*14.5*	*15.7*	*16.9*	*18.0*	*18.9*
150x50x3.0RHS	C450L0	8.96	6500	6160	5880	5530	5250	5030	4800	4560	4350	4170
			7.71	*9.75*	*11.6*	*13.1*	*14.5*	*15.9*	*17.1*	*18.0*	*18.9*	*19.8*
			6.54	*8.26*	*9.86*	*11.1*	*12.3*	*13.5*	*14.5*	*15.3*	*16.0*	*16.8*
150x50x2.5RHS	C450L0	7.53	6320	5980	5570	5240	4980	4690	4420	4200	4000	3840
			7.50	*9.46*	*11.0*	*12.4*	*13.8*	*14.8*	*15.7*	*16.6*	*17.4*	*18.2*
			6.36	*8.02*	*9.34*	*10.5*	*11.7*	*12.6*	*13.3*	*14.1*	*14.8*	*15.5*
150x50x2.0RHS	C450L0	6.07	6080	5610	5040	4610	4270	4000	3780	3580	3420	3270
			7.22	*8.88*	*9.97*	*10.9*	*11.8*	*12.7*	*13.5*	*14.2*	*14.9*	*15.5*
			6.12	*7.53*	*8.45*	*9.28*	*10.0*	*10.7*	*11.4*	*12.0*	*12.6*	*13.2*
125x75x6.0RHS	C450L0	16.7	6680	6400	6170	5970	5800	5610	5400	5210	5050	4900
			7.93	*10.1*	*12.2*	*14.2*	*16.1*	*17.8*	*19.2*	*20.6*	*22.0*	*23.3*
			6.72	*8.59*	*10.3*	*12.0*	*13.6*	*15.1*	*16.3*	*17.5*	*18.6*	*19.7*
125x75x5.0RHS	C450L0	14.2	6570	6270	6030	5830	5610	5370	5160	4980	4830	4690
			7.80	9.92	11.9	13.8	15.5	17.0	18.4	19.7	21.0	22.3
			6.61	8.41	10.1	11.7	13.2	14.4	15.6	16.7	17.8	18.9
125x75x4.0RHS	C450L0	11.6	6410	6100	5850	5570	5290	5060	4870	4700	4550	4420
			7.61	9.65	11.6	13.2	14.7	16.0	17.3	18.6	19.8	21.0
			6.45	8.18	9.81	11.2	12.4	13.6	14.7	15.8	16.8	17.8
125x75x3.0RHS	C450L0	8.96	6180	5850	5490	5160	4900	4690	4510	4340	4140	3960
			7.33	*9.26*	*10.9*	*12.2*	*13.6*	*14.8*	*16.1*	*17.2*	*18.0*	*18.8*
			6.22	*7.85*	*9.21*	*10.4*	*11.5*	*12.6*	*13.6*	*14.6*	*15.3*	*15.9*
125x75x2.5RHS	C450L0	7.53	6000	5600	5200	4820	4470	4190	3950	3750	3580	3430
			7.12	*8.86*	*10.3*	*11.4*	*12.4*	*13.3*	*14.1*	*14.8*	*15.6*	*16.3*
			6.04	*7.51*	*8.72*	*9.70*	*10.5*	*11.2*	*11.9*	*12.6*	*13.2*	*13.8*
125x75x2.0RHS	C450L0	6.07	5730	4980	4470	4080	3790	3540	3340	3170	3030	2900
			6.80	*7.88*	*8.84*	*9.68*	*10.5*	*11.2*	*11.9*	*12.5*	*13.2*	*13.8*
			5.77	*6.68*	*7.50*	*8.21*	*8.90*	*9.50*	*10.1*	*10.6*	*11.2*	*11.7*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.24 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.64 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 61 m/s
V_{hs} = 39 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	5440	5060	4700	4420	4200	4020	3860	3730	3610	3510
D			*6.46*	*8.01*	*9.30*	*10.5*	*11.6*	*12.7*	*13.7*	*14.8*	*15.7*	*16.7*
U			*5.47*	*6.79*	*7.88*	*8.89*	*9.86*	*10.8*	*11.7*	*12.5*	*13.3*	*14.1*
100x50x4.0RHS	C450L0	8.49	5290	4810	4460	4200	3990	3820	3670	3540	3430	3330
D			*6.28*	*7.61*	*8.82*	*9.97*	*11.0*	*12.1*	*13.1*	*14.0*	*14.9*	*15.8*
U			*5.32*	*6.45*	*7.48*	*8.45*	*9.37*	*10.2*	*11.1*	*11.9*	*12.7*	*13.4*
100x50x3.5RHS	C450L0	7.53	5120	4650	4310	4060	3860	3690	3550	3420	3320	3180
D			*6.08*	*7.36*	*8.53*	*9.64*	*10.7*	*11.7*	*12.6*	*13.5*	*14.4*	*15.1*
U			*5.15*	*6.24*	*7.23*	*8.17*	*9.06*	*9.90*	*10.7*	*11.5*	*12.2*	*12.8*
100x50x3.0RHS	C450L0	6.6	4940	4490	4170	3920	3730	3560	3430	3290	3140	3000
D			*5.86*	*7.11*	*8.25*	*9.31*	*10.3*	*11.3*	*12.2*	*13.0*	*13.7*	*14.2*
U			*4.97*	*6.02*	*6.99*	*7.89*	*8.76*	*9.55*	*10.4*	*11.0*	*11.6*	*12.1*
100x50x2.5RHS	C450L0	5.56	4690	4260	3960	3720	3540	3380	3200	3030	2890	2770
D			*5.57*	*6.74*	*7.83*	*8.83*	*9.80*	*10.7*	*11.4*	*12.0*	*12.6*	*13.2*
U			*4.72*	*5.71*	*6.64*	*7.49*	*8.31*	*9.07*	*9.66*	*10.2*	*10.7*	*11.1*
100x50x2.0RHS	C450L0	4.50	4400	3990	3710	3490	3250	3040	2870	2720	2600	2490
D			*5.22*	*6.31*	*7.34*	*8.28*	*9.00*	*9.62*	*10.2*	*10.8*	*11.3*	*11.8*
U			*4.43*	*5.35*	*6.22*	*7.02*	*7.63*	*8.16*	*8.66*	*9.12*	*9.59*	*10.0*
100x50x1.6RHS	C450L0	3.64	4090	3550	3180	2900	2690	2520	2370	2250	2150	2060
D			*4.85*	*5.62*	*6.29*	*6.88*	*7.45*	*7.98*	*8.44*	*8.90*	*9.36*	*9.78*
U			*4.12*	*4.76*	*5.33*	*5.84*	*6.32*	*6.76*	*7.15*	*7.55*	*7.93*	*8.29*
100x100x3.0SHS	C450L0	8.96	5710	5320	4940	4650	4410	4160	3920	3730	3550	3400
D			*6.78*	*8.42*	*9.77*	*11.0*	*12.2*	*13.2*	*14.0*	*14.8*	*15.4*	*16.1*
U			*5.75*	*7.14*	*8.28*	*9.36*	*10.4*	*11.2*	*11.8*	*12.5*	*13.1*	*13.7*
100x100x2.5SHS	C450L0	7.53	5540	5040	4570	4180	3880	3630	3430	3250	3100	2970
D			*6.58*	*7.98*	*9.04*	*9.92*	*10.7*	*11.5*	*12.2*	*12.9*	*13.5*	*14.1*
U			*5.57*	*6.76*	*7.66*	*8.41*	*9.11*	*9.74*	*10.4*	*10.9*	*11.4*	*12.0*
100x100x2.0SHS	C450L0	6.07	5000	4340	3890	3560	3300	3090	2910	2760	2640	2530
D			*5.93*	*6.87*	*7.69*	*8.45*	*9.14*	*9.78*	*10.4*	*10.9*	*11.5*	*12.0*
U			*5.03*	*5.82*	*6.52*	*7.16*	*7.75*	*8.29*	*8.78*	*9.26*	*9.74*	*10.2*
90x90x2.0SHS	C450L0	5.45	4610	4010	3590	3280	3040	2850	2690	2550	2430	2330
D			*5.47*	*6.35*	*7.10*	*7.79*	*8.42*	*9.02*	*9.58*	*10.1*	*10.6*	*11.1*
U			*4.64*	*5.38*	*6.02*	*6.60*	*7.14*	*7.65*	*8.12*	*8.55*	*8.96*	*9.38*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load $(1.2G + 1.5Q_1)\downarrow$	=	0.668 kPa
8 =	Dead & Person Load $(1.2G + 1.5Q_2)\downarrow$		
6 =	Dead & Wind Load $(0.9G + W_u)\uparrow$	=	-2.24 kPa
9 =	Dead & Wind Load $(1.2G + W_u)\downarrow$	=	2.64 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	61 m/s
V_{hs} =	39 m/s
G =	0.244 kPa
$C_{p,n}\uparrow$ =	-1.1
$C_{p,n}\downarrow$ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN

Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	8740	8370	8070	7730	7180	6730	6350	6030	5760	5520
D			*25.9*	*33.1*	*39.9*	*45.9*	*49.7*	*53.3*	*56.5*	*59.6*	*62.7*	*65.5*
U			*22.0*	*28.1*	*33.8*	*38.9*	*42.1*	*45.1*	*47.9*	*50.6*	*53.1*	*55.5*
150x50x5.0RHS	C450L0	14.2	8600	8210	7870	7210	6690	6270	5920	5620	5370	5140
D			*25.5*	*32.5*	*38.9*	*42.8*	*46.3*	*49.6*	*52.7*	*55.6*	*58.4*	*61.0*
U			*21.6*	*27.5*	*33.0*	*36.3*	*39.3*	*42.1*	*44.7*	*47.1*	*49.5*	*51.7*
150x50x4.0RHS	C450L0	11.6	8390	7520	6710	6100	5620	5240	4920	4650	4410	4210
D			*24.9*	*29.8*	*33.2*	*36.2*	*38.9*	*41.5*	*43.8*	*46.0*	*48.0*	*50.0*
U			*21.1*	*25.2*	*28.1*	*30.7*	*33.0*	*35.1*	*37.1*	*39.0*	*40.7*	*42.4*
150x50x3.0RHS	C450L0	8.96	7280	6230	5500	4960	4540	4200	3920	3680	3480	3300
D			*21.6*	*24.6*	*27.2*	*29.4*	*31.4*	*33.2*	*34.9*	*36.4*	*37.9*	*39.2*
U			*18.3*	*20.9*	*23.1*	*25.0*	*26.6*	*28.2*	*29.6*	*30.9*	*32.1*	*33.2*
150x50x2.5RHS	C450L0	7.53	6270	5300	4640	4150	3770	3460	3210	3000	2820	2660
D			*18.6*	*21.0*	*22.9*	*24.6*	*26.1*	*27.4*	*28.6*	*29.7*	*30.7*	*31.6*
U			*15.8*	*17.8*	*19.5*	*20.9*	*22.1*	*23.2*	*24.2*	*25.2*	*26.0*	*26.8*
150x50x2.0RHS	C450L0	6.07	4740	3940	3390	2990	2690	2440	2240	2070	1930	1810
D			*14.1*	*15.6*	*16.8*	*17.7*	*18.6*	*19.3*	*19.9*	*20.5*	*21.0*	*21.5*
U			*11.9*	*13.2*	*14.2*	*15.0*	*15.8*	*16.4*	*16.9*	*17.4*	*17.8*	*18.2*
125x75x6.0RHS	C450L0	16.7	8330	7970	7680	7010	6480	6050	5690	5380	5120	4890
D			*24.7*	*31.5*	*38.0*	*41.6*	*44.9*	*47.9*	*50.7*	*53.2*	*55.7*	*58.0*
U			*21.0*	*26.7*	*32.2*	*35.3*	*38.0*	*40.6*	*42.9*	*45.1*	*47.2*	*49.2*
125x75x5.0RHS	C450L0	14.2	8190	7820	7130	6490	6000	5590	5260	4970	4730	4510
D			24.3	30.9	35.3	38.5	41.5	44.2	46.8	49.2	51.5	53.5
U			20.6	26.2	29.9	32.6	35.2	37.5	39.7	41.7	43.6	45.4
125x75x4.0RHS	C450L0	11.6	7980	7190	6410	5830	5370	5000	4700	4440	4210	4020
D			23.7	28.4	31.7	34.6	37.2	39.6	41.8	43.9	45.8	47.7
U			20.1	24.1	26.9	29.3	31.5	33.5	35.5	37.2	38.8	40.4
125x75x3.0RHS	C450L0	8.96	7140	6130	5440	4920	4520	4190	3920	3690	3500	3330
D			*21.2*	*24.3*	*26.9*	*29.2*	*31.3*	*33.2*	*34.9*	*36.5*	*38.1*	*39.5*
U			*18.0*	*20.6*	*22.8*	*24.8*	*26.5*	*28.1*	*29.6*	*30.9*	*32.3*	*33.5*
125x75x2.5RHS	C450L0	7.53	5930	5050	4450	4010	3660	3390	3150	2960	2790	2640
D			*17.6*	*20.0*	*22.0*	*23.8*	*25.3*	*26.8*	*28.0*	*29.3*	*30.4*	*31.3*
U			*14.9*	*16.9*	*18.7*	*20.2*	*21.5*	*22.7*	*23.8*	*24.8*	*25.7*	*26.6*
125x75x2.0RHS	C450L0	6.07	4620	3880	3380	3020	2730	2500	2310	2150	2020	1900
D			*13.7*	*15.4*	*16.7*	*17.9*	*18.9*	*19.8*	*20.6*	*21.3*	*22.0*	*22.6*
U			*11.6*	*13.0*	*14.2*	*15.2*	*16.0*	*16.8*	*17.4*	*18.0*	*18.6*	*19.1*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.24 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.64 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 61 m/s
V_{hs} = 39 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span 900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	6780	6260	5620	5140	4770	4470	4220	4000	3820	3660
D			*20.1*	*24.8*	*27.8*	*30.5*	*33.0*	*35.4*	*37.6*	*39.6*	*41.6*	*43.4*
U			*17.1*	*21.0*	*23.6*	*25.9*	*28.0*	*30.0*	*31.8*	*33.5*	*35.2*	*36.8*
100x50x4.0RHS	C450L0	8.49	6610	5760	5170	4730	4380	4100	3870	3680	3510	3360
D			*19.6*	*22.8*	*25.6*	*28.1*	*30.3*	*32.4*	*34.4*	*36.4*	*38.2*	*39.9*
U			*16.6*	*19.3*	*21.7*	*23.8*	*25.7*	*27.5*	*29.2*	*30.9*	*32.4*	*33.8*
100x50x3.5RHS	C450L0	7.53	6280	5460	4900	4480	4150	3890	3670	3480	3320	3180
D			*18.6*	*21.6*	*24.2*	*26.6*	*28.7*	*30.8*	*32.7*	*34.4*	*36.1*	*37.7*
U			*15.8*	*18.3*	*20.5*	*22.5*	*24.4*	*26.1*	*27.7*	*29.2*	*30.6*	*32.0*
100x50x3.0RHS	C450L0	6.6	5640	4870	4340	3940	3630	3380	3170	3000	2850	2720
D			*16.7*	*19.3*	*21.5*	*23.4*	*25.1*	*26.7*	*28.2*	*29.7*	*31.0*	*32.3*
U			*14.2*	*16.3*	*18.2*	*19.8*	*21.3*	*22.7*	*23.9*	*25.2*	*26.3*	*27.4*
100x50x2.5RHS	C450L0	5.56	5070	4350	3860	3500	3210	2980	2790	2630	2490	2370
D			*15.0*	*17.2*	*19.1*	*20.8*	*22.2*	*23.6*	*24.8*	*26.0*	*27.1*	*28.1*
U			*12.8*	*14.6*	*16.2*	*17.6*	*18.8*	*20.0*	*21.1*	*22.1*	*23.0*	*23.8*
100x50x2.0RHS	C450L0	4.50	4300	3660	3220	2890	2640	2440	2270	2120	2000	1900
D			*12.8*	*14.5*	*15.9*	*17.2*	*18.3*	*19.3*	*20.2*	*21.0*	*21.8*	*22.6*
U			*10.8*	*12.3*	*13.5*	*14.5*	*15.5*	*16.4*	*17.1*	*17.8*	*18.4*	*19.1*
100x50x1.6RHS	C450L0	3.64	3280	2750	2390	2130	1930	1770	1630	1520	1420	1340
D			*9.73*	*10.9*	*11.8*	*12.6*	*13.4*	*14.0*	*14.5*	*15.0*	*15.4*	*15.9*
U			*8.25*	*9.22*	*10.0*	*10.7*	*11.3*	*11.9*	*12.3*	*12.7*	*13.1*	*13.5*
100x100x3.0SHS	C450L0	8.96	5540	4690	4100	3670	3330	3060	2840	2650	2490	2350
D			*16.4*	*18.6*	*20.3*	*21.8*	*23.1*	*24.2*	*25.3*	*26.2*	*27.1*	*27.9*
U			*13.9*	*15.7*	*17.2*	*18.5*	*19.5*	*20.5*	*21.4*	*22.2*	*23.0*	*23.6*
100x100x2.5SHS	C450L0	7.53	4960	4210	3700	3310	3020	2780	2580	2410	2270	2150
D			*14.7*	*16.7*	*18.3*	*19.6*	*20.9*	*22.0*	*23.0*	*23.8*	*24.7*	*25.5*
U			*12.5*	*14.1*	*15.5*	*16.7*	*17.7*	*18.6*	*19.5*	*20.2*	*20.9*	*21.6*
100x100x2.0SHS	C450L0	6.07	4340	3690	3250	2920	2660	2460	2290	2140	2020	1910
D			*12.9*	*14.6*	*16.1*	*17.3*	*18.4*	*19.5*	*20.4*	*21.2*	*22.0*	*22.7*
U			*10.9*	*12.4*	*13.6*	*14.7*	*15.6*	*16.5*	*17.3*	*17.9*	*18.6*	*19.2*
90x90x2.0SHS	C450L0	5.45	4050	3450	3040	2730	2500	2310	2150	2020	1900	1800
D			*12.0*	*13.6*	*15.0*	*16.2*	*17.3*	*18.3*	*19.1*	*20.0*	*20.7*	*21.4*
U			*10.2*	*11.6*	*12.7*	*13.7*	*14.7*	*15.5*	*16.2*	*16.9*	*17.5*	*18.1*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.24 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	2.64 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	61 m/s
V_{hs} =	39 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.1
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN

Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	5560	5230	4980	4780	4620	4480	4350	4250	4150	4070
D			*8.57*	*10.7*	*12.8*	*14.7*	*16.6*	*18.4*	*20.1*	*21.8*	*23.4*	*25.1*
U			*4.12*	*5.16*	*6.15*	*7.08*	*7.98*	*8.85*	*9.67*	*10.5*	*11.3*	*12.1*
150x50x5.0RHS	C450L0	14.2	5420	5090	4840	4640	4480	4340	4220	4120	4030	3950
D			*8.35*	*10.5*	*12.4*	*14.3*	*16.1*	*17.8*	*19.5*	*21.2*	*22.8*	*24.3*
U			*4.01*	*5.03*	*5.97*	*6.87*	*7.74*	*8.57*	*9.38*	*10.2*	*10.9*	*11.7*
150x50x4.0RHS	C450L0	11.6	5220	4900	4660	4460	4310	4170	4060	3960	3870	3790
D			*8.04*	*10.1*	*12.0*	*13.7*	*15.5*	*17.1*	*18.8*	*20.3*	*21.9*	*23.4*
U			*3.87*	*4.84*	*5.75*	*6.61*	*7.45*	*8.24*	*9.02*	*9.78*	*10.5*	*11.2*
150x50x3.0RHS	C450L0	8.96	4980	4660	4420	4240	4080	3960	3840	3750	3660	3580
D			*7.67*	*9.57*	*11.4*	*13.1*	*14.7*	*16.3*	*17.8*	*19.3*	*20.7*	*22.1*
U			*3.69*	*4.60*	*5.46*	*6.28*	*7.05*	*7.82*	*8.53*	*9.26*	*9.94*	*10.6*
150x50x2.5RHS	C450L0	7.53	4800	4490	4260	4080	3930	3810	3700	3600	3500	3370
D			*7.40*	*9.22*	*10.9*	*12.6*	*14.1*	*15.7*	*17.1*	*18.5*	*19.8*	*20.8*
U			*3.56*	*4.43*	*5.26*	*6.04*	*6.79*	*7.52*	*8.22*	*8.89*	*9.50*	*9.98*
150x50x2.0RHS	C450L0	6.07	4580	4280	4060	3880	3740	3520	3320	3150	3000	2880
D			*7.06*	*8.79*	*10.4*	*12.0*	*13.4*	*14.5*	*15.3*	*16.2*	*16.9*	*17.8*
U			*3.39*	*4.23*	*5.01*	*5.75*	*6.46*	*6.95*	*7.38*	*7.78*	*8.15*	*8.53*
125x75x6.0RHS	C450L0	16.7	5300	4980	4740	4550	4400	4260	4150	4050	3960	3870
D			*8.17*	*10.2*	*12.2*	*14.0*	*15.8*	*17.5*	*19.2*	*20.8*	*22.4*	*23.9*
U			*3.93*	*4.92*	*5.85*	*6.74*	*7.60*	*8.41*	*9.22*	*10.00*	*10.8*	*11.5*
125x75x5.0RHS	C450L0	14.2	5160	4840	4610	4420	4260	4130	4020	3920	3830	3750
D			7.95	9.94	11.8	13.6	15.3	17.0	18.6	20.1	21.6	23.1
U			3.82	4.78	5.69	6.55	7.36	8.16	8.93	9.68	10.4	11.1
125x75x4.0RHS	C450L0	11.6	4970	4660	4430	4240	4090	3970	3860	3760	3680	3600
D			7.66	9.57	11.4	13.1	14.7	16.3	17.8	19.3	20.8	22.2
U			3.68	4.60	5.47	6.28	7.07	7.84	8.58	9.28	9.99	10.7
125x75x3.0RHS	C450L0	8.96	4730	4420	4200	4020	3880	3760	3650	3550	3440	3340
D			*7.29*	*9.08*	*10.8*	*12.4*	*14.0*	*15.5*	*16.9*	*18.2*	*19.4*	*20.6*
U			*3.50*	*4.36*	*5.18*	*5.95*	*6.71*	*7.43*	*8.11*	*8.76*	*9.34*	*9.89*
125x75x2.5RHS	C450L0	7.53	4560	4260	4040	3870	3730	3610	3470	3300	3140	3010
D			*7.03*	*8.75*	*10.4*	*11.9*	*13.4*	*14.8*	*16.0*	*16.9*	*17.7*	*18.6*
U			*3.38*	*4.21*	*4.99*	*5.73*	*6.45*	*7.13*	*7.71*	*8.15*	*8.53*	*8.92*
125x75x2.0RHS	C450L0	6.07	4350	4060	3850	3590	3330	3110	2940	2790	2660	2550
D			*6.70*	*8.34*	*9.89*	*11.1*	*12.0*	*12.8*	*13.6*	*14.3*	*15.0*	*15.7*
U			*3.22*	*4.01*	*4.75*	*5.32*	*5.75*	*6.14*	*6.53*	*6.89*	*7.22*	*7.55*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-1.65 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.42 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 61 m/s
V_{hs} = 39 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4190	3930	3730	3570	3400	3260	3140	3030	2940	2860
D			*6.46*	*8.07*	*9.58*	*11.0*	*12.2*	*13.4*	*14.5*	*15.6*	*16.6*	*17.6*
U			*3.10*	*3.88*	*4.60*	*5.29*	*5.88*	*6.44*	*6.98*	*7.48*	*7.98*	*8.47*
100x50x4.0RHS	C450L0	8.49	4050	3790	3600	3400	3240	3100	2990	2890	2800	2720
D			*6.24*	*7.79*	*9.25*	*10.5*	*11.6*	*12.7*	*13.8*	*14.8*	*15.8*	*16.8*
U			*3.00*	*3.74*	*4.44*	*5.04*	*5.60*	*6.12*	*6.64*	*7.13*	*7.60*	*8.06*
100x50x3.5RHS	C450L0	7.53	3960	3710	3490	3290	3130	3000	2890	2790	2710	2630
D			*6.10*	*7.62*	*8.96*	*10.1*	*11.3*	*12.3*	*13.4*	*14.3*	*15.3*	*16.2*
U			*2.93*	*3.66*	*4.31*	*4.87*	*5.41*	*5.93*	*6.42*	*6.89*	*7.36*	*7.79*
100x50x3.0RHS	C450L0	6.6	3870	3620	3380	3190	3030	2900	2800	2700	2620	2550
D			*5.96*	*7.44*	*8.68*	*9.83*	*10.9*	*11.9*	*12.9*	*13.9*	*14.8*	*15.7*
U			*2.87*	*3.57*	*4.17*	*4.73*	*5.24*	*5.73*	*6.22*	*6.67*	*7.12*	*7.55*
100x50x2.5RHS	C450L0	5.56	3730	3450	3220	3030	2890	2760	2660	2570	2490	2420
D			*5.75*	*7.09*	*8.27*	*9.34*	*10.4*	*11.3*	*12.3*	*13.2*	*14.1*	*14.9*
U			*2.76*	*3.41*	*3.97*	*4.49*	*4.99*	*5.45*	*5.91*	*6.34*	*6.76*	*7.17*
100x50x2.0RHS	C450L0	4.50	3560	3240	3020	2850	2710	2590	2490	2390	2280	2180
D			*5.49*	*6.66*	*7.76*	*8.78*	*9.74*	*10.6*	*11.5*	*12.3*	*12.9*	*13.4*
U			*2.64*	*3.20*	*3.73*	*4.22*	*4.68*	*5.12*	*5.53*	*5.90*	*6.19*	*6.46*
100x50x1.6RHS	C450L0	3.64	3340	3040	2790	2550	2360	2210	2090	1980	1890	1810
D			*5.15*	*6.25*	*7.17*	*7.86*	*8.49*	*9.08*	*9.66*	*10.2*	*10.7*	*11.2*
U			*2.47*	*3.00*	*3.44*	*3.78*	*4.08*	*4.36*	*4.64*	*4.89*	*5.13*	*5.36*
100x100x3.0SHS	C450L0	8.96	4370	4090	3880	3720	3580	3430	3300	3190	3090	2990
D			*6.73*	*8.40*	*9.96*	*11.5*	*12.9*	*14.1*	*15.3*	*16.4*	*17.5*	*18.4*
U			*3.24*	*4.04*	*4.79*	*5.51*	*6.19*	*6.77*	*7.33*	*7.88*	*8.39*	*8.86*
100x100x2.5SHS	C450L0	7.53	4210	3940	3740	3570	3400	3190	3010	2860	2730	2610
D			*6.49*	*8.09*	*9.60*	*11.0*	*12.2*	*13.1*	*13.9*	*14.7*	*15.4*	*16.1*
U			*3.12*	*3.89*	*4.62*	*5.29*	*5.88*	*6.30*	*6.69*	*7.06*	*7.41*	*7.73*
100x100x2.0SHS	C450L0	6.07	4020	3760	3420	3130	2900	2710	2560	2430	2320	2220
D			*6.19*	*7.73*	*8.78*	*9.65*	*10.4*	*11.1*	*11.8*	*12.5*	*13.1*	*13.7*
U			*2.98*	*3.71*	*4.22*	*4.64*	*5.01*	*5.35*	*5.69*	*6.00*	*6.30*	*6.58*
90x90x2.0SHS	C450L0	5.45	3710	3420	3160	2890	2670	2500	2360	2240	2140	2050
D			*5.72*	*7.03*	*8.12*	*8.91*	*9.60*	*10.3*	*10.9*	*11.5*	*12.1*	*12.6*
U			*2.75*	*3.38*	*3.90*	*4.28*	*4.61*	*4.94*	*5.24*	*5.53*	*5.81*	*6.07*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-1.65 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.42 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 61 m/s
V_{hs} = 39 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	6930	6520	6210	5960	5750	5580	5420	5290	5070	4860
D			*26.7*	*33.5*	*39.9*	*45.9*	*51.7*	*57.3*	*62.6*	*67.9*	*71.6*	*74.9*
U			*12.8*	*16.1*	*19.2*	*22.1*	*24.8*	*27.6*	*30.1*	*32.6*	*34.4*	*36.0*
150x50x5.0RHS	C450L0	14.2	6750	6340	6030	5790	5580	5410	5210	4950	4720	4520
D			*26.0*	*32.6*	*38.7*	*44.6*	*50.2*	*55.6*	*60.2*	*63.6*	*66.7*	*69.6*
U			*12.5*	*15.7*	*18.6*	*21.4*	*24.1*	*26.7*	*28.9*	*30.6*	*32.0*	*33.5*
150x50x4.0RHS	C450L0	11.6	6510	6110	5800	5310	4890	4550	4270	4030	3820	3640
D			*25.1*	*31.4*	*37.2*	*40.9*	*44.0*	*46.7*	*49.3*	*51.7*	*54.0*	*56.1*
U			*12.1*	*15.1*	*17.9*	*19.7*	*21.1*	*22.5*	*23.7*	*24.9*	*25.9*	*27.0*
150x50x3.0RHS	C450L0	8.96	6200	5390	4750	4270	3900	3600	3350	3150	2970	2810
D			*23.9*	*27.7*	*30.5*	*32.9*	*35.1*	*37.0*	*38.7*	*40.4*	*42.0*	*43.3*
U			*11.5*	*13.3*	*14.7*	*15.8*	*16.8*	*17.8*	*18.6*	*19.4*	*20.2*	*20.8*
150x50x2.5RHS	C450L0	7.53	5390	4530	3950	3520	3190	2920	2710	2520	2360	2220
D			*20.8*	*23.3*	*25.4*	*27.1*	*28.7*	*30.0*	*31.3*	*32.4*	*33.3*	*34.2*
U			*9.98*	*11.2*	*12.2*	*13.0*	*13.8*	*14.4*	*15.1*	*15.6*	*16.0*	*16.4*
150x50x2.0RHS	C450L0	6.07	4010	3300	2830	2490	2220	2010	1840	1700	1580	1480
D			*15.4*	*16.9*	*18.2*	*19.2*	*20.0*	*20.6*	*21.3*	*21.8*	*22.3*	*22.8*
U			*7.42*	*8.15*	*8.73*	*9.22*	*9.59*	*9.92*	*10.2*	*10.5*	*10.7*	*11.0*
125x75x6.0RHS	C450L0	16.7	6600	6210	5910	5670	5480	5280	4960	4690	4460	4260
D			*25.4*	*31.9*	*37.9*	*43.7*	*49.3*	*54.2*	*57.3*	*60.2*	*63.0*	*65.6*
U			*12.2*	*15.3*	*18.2*	*21.0*	*23.7*	*26.1*	*27.6*	*28.9*	*30.3*	*31.6*
125x75x5.0RHS	C450L0	14.2	6420	6030	5740	5510	5230	4870	4580	4320	4110	3920
D			24.7	31.0	36.9	42.5	47.0	50.0	52.9	55.5	58.1	60.4
U			11.9	14.9	17.7	20.4	22.6	24.0	25.4	26.7	27.9	29.0
125x75x4.0RHS	C450L0	11.6	6190	5800	5520	5080	4670	4350	4070	3850	3650	3480
D			23.8	29.8	35.4	39.1	42.0	44.7	47.0	49.4	51.6	53.6
U			11.5	14.3	17.0	18.8	20.2	21.5	22.6	23.8	24.8	25.8
125x75x3.0RHS	C450L0	8.96	5890	5330	4710	4260	3900	3620	3380	3180	3000	2850
D			*22.7*	*27.4*	*30.2*	*32.8*	*35.1*	*37.2*	*39.1*	*40.8*	*42.4*	*43.9*
U			*10.9*	*13.2*	*14.5*	*15.8*	*16.8*	*17.9*	*18.8*	*19.6*	*20.4*	*21.1*
125x75x2.5RHS	C450L0	7.53	5130	4360	3830	3440	3140	2890	2690	2520	2370	2240
D			*19.8*	*22.4*	*24.6*	*26.5*	*28.2*	*29.7*	*31.1*	*32.4*	*33.5*	*34.5*
U			*9.50*	*10.8*	*11.8*	*12.7*	*13.6*	*14.3*	*14.9*	*15.6*	*16.1*	*16.6*
125x75x2.0RHS	C450L0	6.07	3950	3310	2870	2550	2300	2100	1940	1800	1680	1580
D			*15.2*	*17.0*	*18.4*	*19.6*	*20.7*	*21.6*	*22.4*	*23.1*	*23.7*	*24.3*
U			*7.31*	*8.17*	*8.86*	*9.44*	*9.94*	*10.4*	*10.8*	*11.1*	*11.4*	*11.7*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-1.65 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.42 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 61 m/s
V_{hs} = 39 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	5220	4900	4650	4460	4200	3930	3710	3520	3360	3220
D			*20.1*	*25.2*	*29.9*	*34.4*	*37.8*	*40.4*	*42.9*	*45.2*	*47.5*	*49.6*
U			*9.67*	*12.1*	*14.3*	*16.5*	*18.1*	*19.4*	*20.6*	*21.7*	*22.8*	*23.8*
100x50x4.0RHS	C450L0	8.49	5050	4730	4490	4160	3850	3610	3400	3230	3080	2950
D			*19.5*	*24.3*	*28.8*	*32.1*	*34.6*	*37.1*	*39.3*	*41.5*	*43.5*	*45.5*
U			*9.35*	*11.7*	*13.9*	*15.4*	*16.6*	*17.8*	*18.9*	*19.9*	*20.9*	*21.8*
100x50x3.5RHS	C450L0	7.53	4940	4620	4310	3940	3650	3420	3220	3060	2920	2800
D			*19.0*	*23.7*	*27.7*	*30.4*	*32.8*	*35.1*	*37.2*	*39.3*	*41.2*	*43.1*
U			*9.15*	*11.4*	*13.3*	*14.6*	*15.8*	*16.9*	*17.9*	*18.9*	*19.8*	*20.7*
100x50x3.0RHS	C450L0	6.6	4820	4250	3780	3430	3160	2940	2760	2600	2470	2350
D			*18.6*	*21.8*	*24.3*	*26.4*	*28.4*	*30.2*	*31.9*	*33.4*	*34.9*	*36.2*
U			*8.92*	*10.5*	*11.7*	*12.7*	*13.7*	*14.5*	*15.3*	*16.0*	*16.8*	*17.4*
100x50x2.5RHS	C450L0	5.56	4420	3780	3350	3030	2780	2570	2410	2270	2140	2040
D			*17.0*	*19.4*	*21.5*	*23.3*	*25.0*	*26.4*	*27.9*	*29.1*	*30.2*	*31.4*
U			*8.18*	*9.33*	*10.3*	*11.2*	*12.0*	*12.7*	*13.4*	*14.0*	*14.5*	*15.1*
100x50x2.0RHS	C450L0	4.50	3710	3150	2760	2470	2250	2080	1930	1800	1700	1610
D			*14.3*	*16.2*	*17.7*	*19.0*	*20.2*	*21.4*	*22.3*	*23.1*	*24.0*	*24.8*
U			*6.87*	*7.78*	*8.52*	*9.15*	*9.72*	*10.3*	*10.7*	*11.1*	*11.5*	*11.9*
100x50x1.6RHS	C450L0	3.64	2800	2340	2030	1800	1620	1480	1360	1270	1180	1110
D			*10.8*	*12.0*	*13.0*	*13.9*	*14.6*	*15.2*	*15.7*	*16.3*	*16.7*	*17.1*
U			*5.18*	*5.78*	*6.26*	*6.67*	*7.00*	*7.31*	*7.55*	*7.84*	*8.01*	*8.22*
100x100x3.0SHS	C450L0	8.96	4760	4010	3490	3110	2820	2580	2390	2230	2090	1970
D			*18.3*	*20.6*	*22.4*	*24.0*	*25.3*	*26.5*	*27.6*	*28.6*	*29.5*	*30.4*
U			*8.81*	*9.90*	*10.8*	*11.5*	*12.2*	*12.7*	*13.3*	*13.8*	*14.2*	*14.6*
100x100x2.5SHS	C450L0	7.53	4280	3610	3160	2820	2560	2360	2180	2040	1910	1810
D			*16.5*	*18.5*	*20.3*	*21.7*	*23.0*	*24.2*	*25.2*	*26.2*	*27.0*	*27.9*
U			*7.92*	*8.91*	*9.75*	*10.4*	*11.1*	*11.7*	*12.1*	*12.6*	*13.0*	*13.4*
100x100x2.0SHS	C450L0	6.07	3750	3180	2790	2500	2270	2090	1950	1820	1710	1620
D			*14.4*	*16.3*	*17.9*	*19.3*	*20.4*	*21.5*	*22.5*	*23.4*	*24.2*	*25.0*
U			*6.94*	*7.85*	*8.61*	*9.26*	*9.81*	*10.3*	*10.8*	*11.2*	*11.6*	*12.0*
90x90x2.0SHS	C450L0	5.45	3500	2970	2610	2340	2140	1970	1830	1720	1620	1530
D			*13.5*	*15.3*	*16.8*	*18.0*	*19.2*	*20.2*	*21.1*	*22.1*	*22.9*	*23.6*
U			*6.48*	*7.33*	*8.05*	*8.67*	*9.25*	*9.73*	*10.2*	*10.6*	*11.0*	*11.3*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-1.65 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.42 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 61 m/s
V_{hs} = 39 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	6470	5880	5460	5140	4880	4670	4490	4330	4200	4050
D			*10.9*	*13.2*	*15.3*	*17.3*	*19.2*	*21.0*	*22.7*	*24.3*	*25.9*	*27.3*
U			*14.7*	*17.8*	*20.6*	*23.3*	*25.8*	*28.2*	*30.5*	*32.7*	*34.9*	*36.7*
150x50x5.0RHS	C450L0	14.2	6200	5630	5230	4920	4670	4470	4300	4130	3940	3770
D			*10.4*	*12.6*	*14.7*	*16.6*	*18.4*	*20.1*	*21.7*	*23.2*	*24.3*	*25.4*
U			*14.1*	*17.0*	*19.8*	*22.3*	*24.7*	*27.0*	*29.2*	*31.2*	*32.7*	*34.2*
150x50x4.0RHS	C450L0	11.6	5850	5320	4940	4650	4410	4210	3960	3760	3580	3430
D			*9.85*	*11.9*	*13.9*	*15.7*	*17.3*	*18.9*	*20.0*	*21.1*	*22.1*	*23.1*
U			*13.3*	*16.1*	*18.7*	*21.1*	*23.3*	*25.4*	*26.9*	*28.4*	*29.8*	*31.1*
150x50x3.0RHS	C450L0	8.96	5430	4930	4580	4310	3980	3720	3510	3330	3170	3040
D			*9.15*	*11.1*	*12.9*	*14.5*	*15.6*	*16.7*	*17.7*	*18.7*	*19.6*	*20.5*
U			*12.3*	*14.9*	*17.3*	*19.5*	*21.0*	*22.5*	*23.9*	*25.2*	*26.3*	*27.6*
150x50x2.5RHS	C450L0	7.53	5150	4680	4340	3960	3660	3420	3230	3060	2920	2790
D			*8.67*	*10.5*	*12.2*	*13.3*	*14.4*	*15.4*	*16.3*	*17.2*	*18.0*	*18.8*
U			*11.7*	*14.1*	*16.4*	*18.0*	*19.4*	*20.7*	*22.0*	*23.1*	*24.3*	*25.3*
150x50x2.0RHS	C450L0	6.07	4780	4140	3700	3370	3120	2920	2750	2610	2490	2380
D			*8.05*	*9.30*	*10.4*	*11.4*	*12.3*	*13.1*	*13.9*	*14.7*	*15.4*	*16.0*
U			*10.8*	*12.5*	*14.0*	*15.3*	*16.5*	*17.6*	*18.7*	*19.7*	*20.7*	*21.6*
125x75x6.0RHS	C450L0	16.7	6070	5510	5120	4810	4570	4370	4210	4060	3930	3820
D			*10.2*	*12.4*	*14.4*	*16.2*	*18.0*	*19.6*	*21.3*	*22.8*	*24.3*	*25.7*
U			*13.8*	*16.7*	*19.3*	*21.8*	*24.2*	*26.4*	*28.6*	*30.7*	*32.7*	*34.6*
125x75x5.0RHS	C450L0	14.2	5800	5270	4890	4610	4370	4180	4020	3880	3760	3620
D			9.77	11.8	13.7	15.5	17.2	18.8	20.3	21.8	23.2	24.4
U			13.1	15.9	18.5	20.9	23.1	25.3	27.3	29.3	31.2	32.8
125x75x4.0RHS	C450L0	11.6	5470	4970	4620	4340	4130	3950	3790	3610	3440	3290
D			9.21	11.2	13.0	14.6	16.2	17.7	19.2	20.3	21.2	22.2
U			12.4	15.0	17.5	19.7	21.8	23.9	25.8	27.3	28.6	29.8
125x75x3.0RHS	C450L0	8.96	5070	4610	4280	4020	3790	3540	3340	3170	3020	2890
D			*8.54*	*10.4*	*12.0*	*13.5*	*14.9*	*15.9*	*16.9*	*17.8*	*18.7*	*19.5*
U			*11.5*	*13.9*	*16.2*	*18.2*	*20.0*	*21.4*	*22.7*	*24.0*	*25.1*	*26.2*
125x75x2.5RHS	C450L0	7.53	4800	4340	3880	3540	3270	3060	2880	2730	2610	2500
D			*8.09*	*9.75*	*10.9*	*11.9*	*12.9*	*13.7*	*14.6*	*15.3*	*16.1*	*16.8*
U			*10.9*	*13.1*	*14.7*	*16.0*	*17.3*	*18.5*	*19.6*	*20.6*	*21.7*	*22.7*
125x75x2.0RHS	C450L0	6.07	4240	3660	3270	2990	2760	2580	2440	2310	2200	2110
D			*7.14*	*8.22*	*9.18*	*10.1*	*10.8*	*11.6*	*12.3*	*13.0*	*13.6*	*14.2*
U			*9.61*	*11.1*	*12.4*	*13.6*	*14.6*	*15.6*	*16.6*	*17.5*	*18.3*	*19.1*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-5.04 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	74 m/s
V_{hs} =	47 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d x b x t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4340	3950	3660	3450	3280	3130	3010	2910	2790	2670
D			*7.31*	*8.87*	*10.3*	*11.6*	*12.9*	*14.1*	*15.2*	*16.3*	*17.2*	*18.0*
U			*9.84*	*11.9*	*13.8*	*15.6*	*17.3*	*18.9*	*20.5*	*22.0*	*23.2*	*24.2*
100x50x4.0RHS	C450L0	8.49	4120	3750	3480	3270	3110	2970	2830	2680	2560	2450
D			*6.94*	*8.42*	*9.77*	*11.0*	*12.2*	*13.3*	*14.3*	*15.0*	*15.8*	*16.5*
U			*9.34*	*11.3*	*13.1*	*14.8*	*16.4*	*18.0*	*19.2*	*20.2*	*21.3*	*22.2*
100x50x3.5RHS	C450L0	7.53	3990	3620	3360	3160	3010	2840	2680	2540	2420	2320
D			*6.72*	*8.13*	*9.43*	*10.6*	*11.8*	*12.8*	*13.5*	*14.3*	*14.9*	*15.6*
U			*9.04*	*10.9*	*12.7*	*14.3*	*15.9*	*17.2*	*18.2*	*19.2*	*20.1*	*21.0*
100x50x3.0RHS	C450L0	6.6	3850	3500	3250	3060	2870	2680	2530	2400	2280	2190
D			*6.49*	*7.86*	*9.12*	*10.3*	*11.3*	*12.0*	*12.8*	*13.5*	*14.1*	*14.8*
U			*8.73*	*10.6*	*12.3*	*13.9*	*15.2*	*16.2*	*17.2*	*18.1*	*18.9*	*19.9*
100x50x2.5RHS	C450L0	5.56	3660	3320	3080	2850	2640	2470	2330	2210	2110	2020
D			*6.16*	*7.46*	*8.65*	*9.60*	*10.4*	*11.1*	*11.8*	*12.4*	*13.0*	*13.6*
U			*8.30*	*10.0*	*11.6*	*12.9*	*14.0*	*14.9*	*15.8*	*16.7*	*17.5*	*18.3*
100x50x2.0RHS	C450L0	4.50	3430	3110	2800	2560	2370	2210	2090	1980	1890	1810
D			*5.78*	*6.98*	*7.86*	*8.62*	*9.31*	*9.93*	*10.6*	*11.1*	*11.7*	*12.2*
U			*7.77*	*9.40*	*10.6*	*11.6*	*12.5*	*13.4*	*14.2*	*15.0*	*15.7*	*16.4*
100x50x1.6RHS	C450L0	3.64	3000	2590	2320	2110	1960	1830	1730	1640	1560	1490
D			*5.05*	*5.82*	*6.51*	*7.11*	*7.70*	*8.22*	*8.74*	*9.21*	*9.63*	*10.0*
U			*6.80*	*7.83*	*8.76*	*9.57*	*10.4*	*11.1*	*11.8*	*12.4*	*13.0*	*13.5*
100x100x3.0SHS	C450L0	8.96	4560	4150	3850	3520	3260	3040	2870	2720	2590	2480
D			*7.68*	*9.32*	*10.8*	*11.9*	*12.8*	*13.7*	*14.5*	*15.3*	*16.0*	*16.7*
U			*10.3*	*12.5*	*14.5*	*16.0*	*17.2*	*18.4*	*19.5*	*20.6*	*21.5*	*22.5*
100x100x2.5SHS	C450L0	7.53	4320	3760	3360	3070	2840	2650	2500	2370	2260	2160
D			*7.28*	*8.44*	*9.43*	*10.3*	*11.2*	*11.9*	*12.6*	*13.3*	*14.0*	*14.6*
U			*9.79*	*11.4*	*12.7*	*13.9*	*15.0*	*16.0*	*17.0*	*17.9*	*18.8*	*19.6*
100x100x2.0SHS	C450L0	6.07	3690	3190	2850	2600	2410	2250	2120	2010	1920	1840
D			*6.22*	*7.16*	*8.00*	*8.76*	*9.47*	*10.1*	*10.7*	*11.3*	*11.9*	*12.4*
U			*8.36*	*9.64*	*10.8*	*11.8*	*12.7*	*13.6*	*14.4*	*15.2*	*16.0*	*16.7*
90x90x2.0SHS	C450L0	5.45	3400	2940	2630	2400	2220	2080	1960	1860	1770	1690
D			*5.73*	*6.60*	*7.38*	*8.09*	*8.73*	*9.34*	*9.90*	*10.4*	*10.9*	*11.4*
U			*7.71*	*8.89*	*9.94*	*10.9*	*11.7*	*12.6*	*13.3*	*14.1*	*14.7*	*15.3*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load	Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	= 0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓	
6 =	Dead & Wind Load (0.9G + W_u)↑	= -5.04 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	= 3.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)	

Load	
V_{hu} =	74 m/s
V_{hs} =	47 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	8210	7080	6310	5750	5320	4970	4690	4440	4230	4050
D			*34.6*	*39.8*	*44.3*	*48.4*	*52.3*	*55.8*	*59.2*	*62.3*	*65.3*	*68.2*
U			*46.5*	*53.5*	*59.6*	*65.2*	*70.3*	*75.1*	*79.7*	*83.9*	*87.9*	*91.8*
150x50x5.0RHS	C450L0	14.2	7610	6570	5860	5350	4940	4620	4350	4130	3940	3770
D			*32.0*	*36.9*	*41.1*	*45.1*	*48.5*	*51.9*	*55.0*	*58.0*	*60.8*	*63.5*
U			*43.1*	*49.6*	*55.3*	*60.6*	*65.3*	*69.8*	*73.9*	*78.0*	*81.9*	*85.5*
150x50x4.0RHS	C450L0	11.6	6920	5970	5330	4860	4500	4210	3960	3760	3580	3430
D			*29.1*	*33.5*	*37.4*	*40.9*	*44.2*	*47.3*	*50.0*	*52.8*	*55.3*	*57.8*
U			*39.2*	*45.1*	*50.3*	*55.1*	*59.5*	*63.6*	*67.3*	*71.0*	*74.4*	*77.7*
150x50x3.0RHS	C450L0	8.96	6020	5120	4510	4050	3700	3410	3180	2980	2810	2660
D			*25.4*	*28.7*	*31.7*	*34.1*	*36.4*	*38.3*	*40.2*	*41.8*	*43.4*	*44.8*
U			*34.1*	*38.7*	*42.6*	*45.9*	*48.9*	*51.5*	*54.1*	*56.3*	*58.4*	*60.3*
150x50x2.5RHS	C450L0	7.53	5110	4290	3740	3330	3010	2760	2550	2370	2220	2090
D			*21.5*	*24.1*	*26.2*	*28.0*	*29.6*	*31.0*	*32.2*	*33.3*	*34.3*	*35.2*
U			*29.0*	*32.4*	*35.3*	*37.7*	*39.8*	*41.7*	*43.3*	*44.8*	*46.1*	*47.4*
150x50x2.0RHS	C450L0	6.07	3780	3110	2660	2330	2080	1880	1720	1590	1470	1380
D			*15.9*	*17.5*	*18.7*	*19.6*	*20.4*	*21.1*	*21.7*	*22.3*	*22.7*	*23.2*
U			*21.4*	*23.5*	*25.1*	*26.4*	*27.5*	*28.4*	*29.2*	*30.0*	*30.5*	*31.3*
125x75x6.0RHS	C450L0	16.7	7890	6800	6070	5530	5110	4780	4500	4270	4070	3900
D			*33.2*	*38.2*	*42.6*	*46.6*	*50.2*	*53.7*	*56.8*	*59.9*	*62.8*	*65.7*
U			*44.7*	*51.4*	*57.3*	*62.7*	*67.6*	*72.2*	*76.5*	*80.7*	*84.6*	*88.4*
125x75x5.0RHS	C450L0	14.2	7310	6310	5630	5130	4750	4440	4180	3970	3780	3620
D			30.8	35.4	39.5	43.2	46.7	49.9	52.8	55.7	58.4	61.0
U			41.4	47.7	53.2	58.1	62.8	67.1	71.1	75.0	78.5	82.1
125x75x4.0RHS	C450L0	11.6	6640	5730	5120	4670	4320	4040	3800	3610	3440	3290
D			28.0	32.2	35.9	39.3	42.4	45.4	48.0	50.7	53.1	55.4
U			37.6	43.3	48.4	52.9	57.1	61.0	64.6	68.2	71.5	74.6
125x75x3.0RHS	C450L0	8.96	5820	5030	4480	4050	3710	3430	3210	3020	2850	2710
D			*24.5*	*28.2*	*31.4*	*34.1*	*36.5*	*38.5*	*40.6*	*42.4*	*44.0*	*45.6*
U			*33.0*	*38.0*	*42.3*	*45.9*	*49.1*	*51.8*	*54.6*	*57.0*	*59.2*	*61.4*
125x75x2.5RHS	C450L0	7.53	4880	4140	3630	3260	2970	2740	2540	2380	2240	2120
D			*20.5*	*23.2*	*25.5*	*27.5*	*29.2*	*30.8*	*32.1*	*33.4*	*34.6*	*35.7*
U			*27.7*	*31.3*	*34.3*	*36.9*	*39.3*	*41.4*	*43.2*	*45.0*	*46.5*	*48.1*
125x75x2.0RHS	C450L0	6.07	3740	3120	2710	2400	2160	1980	1820	1690	1580	1480
D			*15.7*	*17.5*	*19.0*	*20.2*	*21.2*	*22.2*	*23.0*	*23.7*	*24.4*	*24.9*
U			*21.2*	*23.6*	*25.6*	*27.2*	*28.6*	*29.9*	*30.9*	*31.9*	*32.8*	*33.5*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-5.04 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 74 m/s
V_{hs} = 47 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.6
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	5390	4650	4150	3790	3500	3280	3090	2930	2790	2670
D			*22.7*	*26.1*	*29.1*	*31.9*	*34.4*	*36.8*	*39.0*	*41.1*	*43.1*	*45.0*
U			*30.5*	*35.1*	*39.2*	*43.0*	*46.3*	*49.6*	*52.5*	*55.3*	*58.0*	*60.5*
100x50x4.0RHS	C450L0	8.49	4930	4260	3800	3470	3210	3000	2830	2680	2560	2450
D			*20.8*	*23.9*	*26.7*	*29.2*	*31.5*	*33.7*	*35.8*	*37.6*	*39.5*	*41.3*
U			*27.9*	*32.2*	*35.9*	*39.3*	*42.4*	*45.3*	*48.1*	*50.6*	*53.2*	*55.5*
100x50x3.5RHS	C450L0	7.53	4660	4030	3600	3280	3040	2840	2680	2540	2420	2320
D			*19.6*	*22.6*	*25.3*	*27.6*	*29.9*	*31.9*	*33.9*	*35.7*	*37.4*	*39.1*
U			*26.4*	*30.4*	*34.0*	*37.2*	*40.2*	*42.9*	*45.6*	*48.0*	*50.3*	*52.6*
100x50x3.0RHS	C450L0	6.6	4390	3800	3390	3100	2870	2680	2530	2400	2280	2190
D			*18.5*	*21.3*	*23.8*	*26.1*	*28.2*	*30.1*	*32.0*	*33.7*	*35.2*	*36.9*
U			*24.9*	*28.7*	*32.0*	*35.1*	*37.9*	*40.5*	*43.0*	*45.3*	*47.4*	*49.6*
100x50x2.5RHS	C450L0	5.56	4050	3500	3130	2850	2640	2450	2290	2150	2040	1930
D			*17.1*	*19.7*	*22.0*	*24.0*	*25.9*	*27.5*	*28.9*	*30.2*	*31.5*	*32.5*
U			*22.9*	*26.4*	*29.6*	*32.3*	*34.9*	*37.0*	*38.9*	*40.6*	*42.4*	*43.7*
100x50x2.0RHS	C450L0	4.50	3530	2990	2620	2340	2130	1960	1820	1710	1600	1520
D			*14.9*	*16.8*	*18.4*	*19.7*	*20.9*	*22.0*	*23.0*	*24.0*	*24.7*	*25.6*
U			*20.0*	*22.6*	*24.7*	*26.5*	*28.2*	*29.6*	*30.9*	*32.3*	*33.2*	*34.5*
100x50x1.6RHS	C450L0	3.64	2650	2210	1910	1690	1530	1390	1280	1190	1110	1040
D			*11.2*	*12.4*	*13.4*	*14.2*	*15.0*	*15.6*	*16.2*	*16.7*	*17.1*	*17.5*
U			*15.0*	*16.7*	*18.0*	*19.2*	*20.2*	*21.0*	*21.8*	*22.5*	*23.1*	*23.6*
100x100x3.0SHS	C450L0	8.96	4520	3800	3300	2940	2660	2440	2250	2100	1960	1850
D			*19.0*	*21.3*	*23.2*	*24.8*	*26.1*	*27.4*	*28.4*	*29.5*	*30.3*	*31.2*
U			*25.6*	*28.7*	*31.2*	*33.3*	*35.2*	*36.9*	*38.2*	*39.7*	*40.7*	*41.9*
100x100x2.5SHS	C450L0	7.53	4060	3430	2990	2670	2420	2220	2060	1920	1800	1700
D			*17.1*	*19.3*	*21.0*	*22.5*	*23.8*	*24.9*	*26.0*	*27.0*	*27.8*	*28.6*
U			*23.0*	*25.9*	*28.2*	*30.3*	*32.0*	*33.5*	*35.0*	*36.3*	*37.4*	*38.5*
100x100x2.0SHS	C450L0	6.07	3560	3020	2640	2370	2150	1980	1840	1720	1620	1530
D			*15.0*	*17.0*	*18.5*	*20.0*	*21.1*	*22.2*	*23.2*	*24.1*	*25.0*	*25.8*
U			*20.2*	*22.8*	*24.9*	*26.9*	*28.4*	*29.9*	*31.3*	*32.5*	*33.7*	*34.7*
90x90x2.0SHS	C450L0	5.45	3330	2820	2480	2220	2020	1870	1730	1620	1530	1440
D			*14.0*	*15.8*	*17.4*	*18.7*	*19.8*	*21.0*	*21.9*	*22.7*	*23.6*	*24.3*
U			*18.9*	*21.3*	*23.4*	*25.2*	*26.7*	*28.3*	*29.4*	*30.6*	*31.8*	*32.6*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-5.04 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	74 m/s
V_{hs} =	47 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN

Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	5560	5230	4980	4780	4620	4480	4350	4250	4150	4070
			11.3	*14.2*	*16.9*	*19.5*	*22.0*	*24.4*	*26.6*	*28.9*	*31.0*	*33.2*
			11.1	*14.0*	*16.6*	*19.1*	*21.6*	*23.9*	*26.1*	*28.3*	*30.5*	*32.6*
150x50x5.0RHS	C450L0	14.2	5420	5090	4840	4640	4480	4340	4220	4120	4020	3910
			11.0	*13.8*	*16.4*	*18.9*	*21.3*	*23.6*	*25.8*	*28.0*	*30.0*	*31.9*
			10.8	*13.6*	*16.1*	*18.6*	*20.9*	*23.2*	*25.3*	*27.5*	*29.5*	*31.3*
150x50x4.0RHS	C450L0	11.6	5220	4900	4660	4460	4310	4170	4060	3920	3750	3590
			10.6	*13.3*	*15.8*	*18.2*	*20.5*	*22.7*	*24.8*	*26.6*	*28.0*	*29.3*
			10.4	*13.1*	*15.5*	*17.9*	*20.1*	*22.3*	*24.4*	*26.1*	*27.5*	*28.7*
150x50x3.0RHS	C450L0	8.96	4980	4660	4420	4240	4080	3900	3680	3490	3330	3190
			10.2	*12.7*	*15.0*	*17.3*	*19.4*	*21.2*	*22.5*	*23.7*	*24.9*	*26.0*
			9.97	*12.4*	*14.7*	*17.0*	*19.1*	*20.8*	*22.1*	*23.3*	*24.4*	*25.5*
150x50x2.5RHS	C450L0	7.53	4800	4490	4260	4080	3830	3590	3380	3210	3060	2930
			9.78	*12.2*	*14.5*	*16.6*	*18.2*	*19.5*	*20.7*	*21.8*	*22.9*	*23.9*
			9.61	*12.0*	*14.2*	*16.3*	*17.9*	*19.2*	*20.3*	*21.4*	*22.5*	*23.5*
150x50x2.0RHS	C450L0	6.07	4580	4280	3860	3530	3270	3060	2890	2740	2610	2500
			9.34	*11.6*	*13.1*	*14.4*	*15.6*	*16.6*	*17.7*	*18.6*	*19.5*	*20.4*
			9.17	*11.4*	*12.9*	*14.1*	*15.3*	*16.3*	*17.3*	*18.3*	*19.2*	*20.0*
125x75x6.0RHS	C450L0	16.7	5300	4980	4740	4550	4400	4260	4150	4050	3930	3820
			10.8	*13.5*	*16.1*	*18.5*	*20.9*	*23.2*	*25.4*	*27.5*	*29.4*	*31.1*
			10.6	*13.3*	*15.8*	*18.2*	*20.5*	*22.7*	*24.9*	*27.0*	*28.8*	*30.6*
125x75x5.0RHS	C450L0	14.2	5160	4840	4610	4420	4260	4130	4020	3880	3760	3660
			10.5	13.2	15.7	18.0	20.3	22.5	24.6	26.4	28.1	29.8
			10.3	12.9	15.4	17.7	19.9	22.0	24.1	25.9	27.6	29.3
125x75x4.0RHS	C450L0	11.6	4970	4660	4430	4240	4090	3950	3790	3660	3550	3450
			10.1	12.7	15.1	17.3	19.5	21.5	23.2	24.9	26.5	28.1
			9.95	12.4	14.8	17.0	19.1	21.1	22.8	24.4	26.0	27.6
125x75x3.0RHS	C450L0	8.96	4730	4420	4200	4020	3820	3660	3500	3320	3160	3030
			9.64	*12.0*	*14.3*	*16.4*	*18.2*	*19.9*	*21.4*	*22.6*	*23.6*	*24.7*
			9.47	*11.8*	*14.0*	*16.1*	*17.8*	*19.5*	*21.0*	*22.1*	*23.2*	*24.3*
125x75x2.5RHS	C450L0	7.53	4560	4260	4040	3690	3420	3200	3020	2870	2740	2620
			9.30	*11.6*	*13.7*	*15.0*	*16.3*	*17.4*	*18.5*	*19.5*	*20.5*	*21.4*
			9.13	*11.4*	*13.5*	*14.8*	*16.0*	*17.1*	*18.1*	*19.1*	*20.1*	*21.0*
125x75x2.0RHS	C450L0	6.07	4350	3820	3420	3130	2900	2710	2560	2430	2310	2220
			8.87	*10.4*	*11.6*	*12.8*	*13.8*	*14.7*	*15.7*	*16.5*	*17.3*	*18.1*
			8.70	*10.2*	*11.4*	*12.5*	*13.5*	*14.5*	*15.4*	*16.2*	*16.9*	*17.8*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-4.45 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.53 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	74 m/s
V_{hs} =	47 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4190	3930	3660	3450	3280	3130	3010	2910	2820	2740
D			*8.54*	*10.7*	*12.4*	*14.1*	*15.6*	*17.0*	*18.4*	*19.8*	*21.1*	*22.3*
U			*8.38*	*10.5*	*12.2*	*13.8*	*15.3*	*16.7*	*18.1*	*19.4*	*20.7*	*21.9*
100x50x4.0RHS	C450L0	8.49	4050	3750	3480	3270	3110	2970	2860	2760	2670	2570
D			*8.26*	*10.2*	*11.8*	*13.3*	*14.8*	*16.1*	*17.5*	*18.8*	*20.0*	*21.0*
U			*8.10*	*10.0*	*11.6*	*13.1*	*14.5*	*15.8*	*17.2*	*18.4*	*19.6*	*20.6*
100x50x3.5RHS	C450L0	7.53	3960	3620	3360	3160	3010	2880	2760	2660	2540	2430
D			*8.07*	*9.84*	*11.4*	*12.9*	*14.3*	*15.7*	*16.9*	*18.1*	*19.0*	*19.8*
U			*7.92*	*9.66*	*11.2*	*12.6*	*14.1*	*15.4*	*16.6*	*17.7*	*18.6*	*19.5*
100x50x3.0RHS	C450L0	6.6	3850	3500	3250	3060	2900	2780	2650	2510	2400	2300
D			*7.85*	*9.51*	*11.0*	*12.5*	*13.8*	*15.1*	*16.2*	*17.1*	*17.9*	*18.8*
U			*7.70*	*9.34*	*10.8*	*12.2*	*13.5*	*14.8*	*15.9*	*16.7*	*17.6*	*18.4*
100x50x2.5RHS	C450L0	5.56	3660	3320	3080	2900	2760	2590	2440	2320	2210	2120
D			*7.46*	*9.02*	*10.5*	*11.8*	*13.1*	*14.1*	*14.9*	*15.8*	*16.5*	*17.3*
U			*7.32*	*8.86*	*10.3*	*11.6*	*12.9*	*13.8*	*14.6*	*15.5*	*16.2*	*17.0*
100x50x2.0RHS	C450L0	4.50	3430	3110	2890	2680	2480	2320	2190	2080	1980	1900
D			*6.99*	*8.45*	*9.82*	*10.9*	*11.8*	*12.6*	*13.4*	*14.1*	*14.8*	*15.5*
U			*6.86*	*8.30*	*9.64*	*10.7*	*11.6*	*12.4*	*13.1*	*13.9*	*14.5*	*15.2*
100x50x1.6RHS	C450L0	3.64	3130	2720	2430	2220	2060	1920	1810	1720	1640	1570
D			*6.38*	*7.39*	*8.26*	*9.05*	*9.80*	*10.4*	*11.1*	*11.7*	*12.3*	*12.8*
U			*6.26*	*7.26*	*8.10*	*8.89*	*9.62*	*10.2*	*10.9*	*11.5*	*12.0*	*12.6*
100x100x3.0SHS	C450L0	8.96	4370	4090	3850	3620	3400	3180	3000	2850	2720	2600
D			*8.91*	*11.1*	*13.1*	*14.8*	*16.2*	*17.3*	*18.3*	*19.4*	*20.3*	*21.2*
U			*8.74*	*10.9*	*12.8*	*14.5*	*15.9*	*17.0*	*18.0*	*19.0*	*20.0*	*20.8*
100x100x2.5SHS	C450L0	7.53	4210	3910	3510	3200	2970	2780	2620	2490	2370	2270
D			*8.58*	*10.6*	*11.9*	*13.0*	*14.1*	*15.1*	*16.0*	*16.9*	*17.7*	*18.5*
U			*8.42*	*10.4*	*11.7*	*12.8*	*13.9*	*14.8*	*15.7*	*16.6*	*17.4*	*18.2*
100x100x2.0SHS	C450L0	6.07	3830	3330	2980	2720	2520	2360	2230	2110	2020	1930
D			*7.81*	*9.05*	*10.1*	*11.1*	*12.0*	*12.8*	*13.6*	*14.3*	*15.1*	*15.7*
U			*7.66*	*8.89*	*9.94*	*10.9*	*11.8*	*12.6*	*13.4*	*14.1*	*14.8*	*15.4*
90x90x2.0SHS	C450L0	5.45	3540	3070	2750	2510	2330	2180	2050	1950	1860	1780
D			*7.22*	*8.34*	*9.34*	*10.2*	*11.1*	*11.9*	*12.5*	*13.2*	*13.9*	*14.5*
U			*7.08*	*8.19*	*9.17*	*10.0*	*10.9*	*11.6*	*12.3*	*13.0*	*13.6*	*14.2*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-4.45 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.53 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 74 m/s
V_{hs} = 47 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.6
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	6930	6520	6210	5950	5520	5170	4870	4630	4420	4230
D			*35.3*	*44.3*	*52.7*	*60.6*	*65.6*	*70.3*	*74.5*	*78.7*	*82.6*	*86.2*
U			*34.7*	*43.5*	*51.8*	*59.5*	*64.4*	*69.0*	*73.1*	*77.2*	*81.1*	*84.6*
150x50x5.0RHS	C450L0	14.2	6750	6340	6030	5540	5140	4810	4540	4310	4110	3940
D			*34.4*	*43.1*	*51.2*	*56.5*	*61.1*	*65.4*	*69.4*	*73.2*	*76.8*	*80.3*
U			*33.8*	*42.3*	*50.3*	*55.4*	*60.0*	*64.2*	*68.1*	*71.9*	*75.4*	*78.8*
150x50x4.0RHS	C450L0	11.6	6510	5680	5040	4570	4200	3910	3660	3450	3270	3120
D			*33.2*	*38.6*	*42.8*	*46.6*	*49.9*	*53.1*	*56.0*	*58.6*	*61.1*	*63.6*
U			*32.6*	*37.9*	*42.0*	*45.7*	*49.0*	*52.2*	*54.9*	*57.5*	*60.0*	*62.4*
150x50x3.0RHS	C450L0	8.96	5410	4590	4030	3620	3300	3040	2820	2640	2490	2350
D			*27.6*	*31.2*	*34.2*	*36.9*	*39.2*	*41.3*	*43.1*	*44.8*	*46.5*	*47.9*
U			*27.1*	*30.6*	*33.6*	*36.2*	*38.5*	*40.6*	*42.3*	*44.0*	*45.7*	*47.0*
150x50x2.5RHS	C450L0	7.53	4560	3810	3310	2940	2650	2430	2240	2080	1940	1830
D			*23.2*	*25.9*	*28.1*	*30.0*	*31.5*	*33.0*	*34.2*	*35.3*	*36.3*	*37.3*
U			*22.8*	*25.4*	*27.6*	*29.4*	*30.9*	*32.4*	*33.6*	*34.7*	*35.6*	*36.6*
150x50x2.0RHS	C450L0	6.07	3320	2720	2320	2030	1800	1630	1490	1370	1270	1180
D			*16.9*	*18.5*	*19.7*	*20.7*	*21.4*	*22.2*	*22.8*	*23.3*	*23.7*	*24.1*
U			*16.6*	*18.1*	*19.3*	*20.3*	*21.0*	*21.7*	*22.4*	*22.8*	*23.3*	*23.6*
125x75x6.0RHS	C450L0	16.7	6600	6210	5830	5300	4890	4550	4270	4040	3830	3660
D			*33.6*	*42.2*	*49.5*	*54.0*	*58.1*	*61.8*	*65.3*	*68.6*	*71.6*	*74.6*
U			*33.0*	*41.4*	*48.6*	*53.0*	*57.1*	*60.7*	*64.1*	*67.4*	*70.3*	*73.2*
125x75x5.0RHS	C450L0	14.2	6420	6030	5390	4890	4510	4190	3930	3710	3530	3360
D			32.7	41.0	45.8	49.8	53.6	56.9	60.1	63.0	66.0	68.5
U			32.1	40.2	44.9	48.9	52.6	55.9	59.0	61.9	64.8	67.2
125x75x4.0RHS	C450L0	11.6	6190	5430	4820	4360	4010	3730	3490	3290	3120	2970
D			31.5	36.9	40.9	44.4	47.7	50.7	53.4	55.9	58.3	60.5
U			31.0	36.2	40.2	43.6	46.8	49.8	52.4	54.9	57.2	59.4
125x75x3.0RHS	C450L0	8.96	5350	4570	4030	3630	3320	3070	2870	2690	2540	2410
D			*27.3*	*31.1*	*34.2*	*37.0*	*39.5*	*41.7*	*43.9*	*45.7*	*47.5*	*49.1*
U			*26.8*	*30.5*	*33.6*	*36.3*	*38.8*	*41.0*	*43.1*	*44.9*	*46.6*	*48.2*
125x75x2.5RHS	C450L0	7.53	4380	3710	3240	2910	2640	2430	2250	2110	1980	1870
D			*22.3*	*25.2*	*27.5*	*29.7*	*31.4*	*33.0*	*34.4*	*35.8*	*37.0*	*38.1*
U			*21.9*	*24.7*	*27.0*	*29.1*	*30.8*	*32.4*	*33.8*	*35.2*	*36.3*	*37.4*
125x75x2.0RHS	C450L0	6.07	3320	2760	2390	2110	1900	1730	1590	1470	1370	1290
D			*16.9*	*18.8*	*20.3*	*21.5*	*22.6*	*23.5*	*24.3*	*25.0*	*25.6*	*26.3*
U			*16.6*	*18.4*	*19.9*	*21.1*	*22.2*	*23.1*	*23.9*	*24.5*	*25.1*	*25.8*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-4.45 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.53 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	74 m/s
V_{hs} =	47 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	5220	4810	4320	3950	3660	3420	3230	3070	2920	2800
D			*26.6*	*32.7*	*36.7*	*40.3*	*43.5*	*46.5*	*49.4*	*52.2*	*54.6*	*57.1*
U			*26.1*	*32.1*	*36.0*	*39.5*	*42.7*	*45.6*	*48.5*	*51.2*	*53.6*	*56.0*
100x50x4.0RHS	C450L0	8.49	5050	4420	3960	3620	3360	3140	2960	2810	2680	2570
D			*25.7*	*30.0*	*33.6*	*36.9*	*40.0*	*42.7*	*45.3*	*47.7*	*50.1*	*52.4*
U			*25.3*	*29.5*	*33.0*	*36.2*	*39.2*	*41.9*	*44.4*	*46.9*	*49.2*	*51.4*
100x50x3.5RHS	C450L0	7.53	4830	4190	3750	3430	3180	2970	2810	2660	2540	2430
D			*24.6*	*28.5*	*31.9*	*35.0*	*37.8*	*40.4*	*43.0*	*45.2*	*47.5*	*49.5*
U			*24.2*	*27.9*	*31.3*	*34.3*	*37.1*	*39.6*	*42.2*	*44.4*	*46.6*	*48.6*
100x50x3.0RHS	C450L0	6.6	4270	3670	3260	2950	2710	2520	2360	2230	2110	2010
D			*21.8*	*24.9*	*27.7*	*30.1*	*32.2*	*34.2*	*36.1*	*37.9*	*39.4*	*41.0*
U			*21.4*	*24.5*	*27.2*	*29.5*	*31.6*	*33.6*	*35.4*	*37.2*	*38.7*	*40.2*
100x50x2.5RHS	C450L0	5.56	3800	3240	2870	2590	2370	2190	2050	1920	1820	1730
D			*19.4*	*22.0*	*24.4*	*26.4*	*28.2*	*29.8*	*31.3*	*32.6*	*34.0*	*35.3*
U			*19.0*	*21.6*	*23.9*	*25.9*	*27.7*	*29.2*	*30.8*	*32.0*	*33.4*	*34.6*
100x50x2.0RHS	C450L0	4.50	3160	2670	2330	2090	1890	1740	1610	1510	1420	1340
D			*16.1*	*18.1*	*19.8*	*21.3*	*22.5*	*23.6*	*24.6*	*25.7*	*26.5*	*27.3*
U			*15.8*	*17.8*	*19.4*	*20.9*	*22.1*	*23.2*	*24.2*	*25.2*	*26.0*	*26.8*
100x50x1.6RHS	C450L0	3.64	2350	1950	1680	1490	1340	1220	1120	1040	960	900
D			*12.0*	*13.2*	*14.3*	*15.2*	*15.9*	*16.6*	*17.1*	*17.7*	*17.9*	*18.3*
U			*11.8*	*13.0*	*14.0*	*14.9*	*15.6*	*16.3*	*16.8*	*17.3*	*17.6*	*18.0*
100x100x3.0SHS	C450L0	8.96	4030	3370	2930	2600	2350	2140	1980	1840	1720	1610
D			*20.5*	*22.9*	*24.9*	*26.5*	*27.9*	*29.1*	*30.3*	*31.3*	*32.1*	*32.8*
U			*20.2*	*22.5*	*24.4*	*26.0*	*27.4*	*28.5*	*29.7*	*30.7*	*31.6*	*32.2*
100x100x2.5SHS	C450L0	7.53	3630	3050	2660	2370	2140	1960	1820	1690	1580	1490
D			*18.5*	*20.7*	*22.6*	*24.2*	*25.4*	*26.6*	*27.8*	*28.7*	*29.5*	*30.4*
U			*18.2*	*20.3*	*22.2*	*23.7*	*25.0*	*26.1*	*27.3*	*28.2*	*29.0*	*29.8*
100x100x2.0SHS	C450L0	6.07	3190	2690	2350	2100	1910	1760	1630	1520	1430	1350
D			*16.3*	*18.3*	*20.0*	*21.4*	*22.7*	*23.9*	*24.9*	*25.8*	*26.7*	*27.5*
U			*16.0*	*17.9*	*19.6*	*21.0*	*22.3*	*23.5*	*24.5*	*25.3*	*26.2*	*27.0*
90x90x2.0SHS	C450L0	5.45	2990	2530	2210	1980	1800	1660	1540	1440	1350	1280
D			*15.2*	*17.2*	*18.8*	*20.2*	*21.4*	*22.6*	*23.5*	*24.5*	*25.2*	*26.1*
U			*15.0*	*16.9*	*18.4*	*19.8*	*21.0*	*22.1*	*23.1*	*24.0*	*24.8*	*25.6*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-4.45 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.53 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	74 m/s
V_{hs} =	47 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	7020	6670	6190	5820	5530	5290	5090	4910	4760	4620
D			*11.8*	*15.0*	*17.4*	*19.6*	*21.7*	*23.8*	*25.7*	*27.6*	*29.4*	*31.1*
U			*10.7*	*13.6*	*15.8*	*17.8*	*19.7*	*21.5*	*23.3*	*25.0*	*26.7*	*28.2*
150x50x5.0RHS	C450L0	14.2	6910	6380	5920	5580	5300	5070	4870	4700	4520	4330
D			*11.6*	*14.3*	*16.6*	*18.8*	*20.8*	*22.8*	*24.6*	*26.4*	*27.9*	*29.2*
U			*10.6*	*13.0*	*15.1*	*17.0*	*18.9*	*20.7*	*22.3*	*23.9*	*25.3*	*26.5*
150x50x4.0RHS	C450L0	11.6	6630	6020	5590	5260	5000	4780	4550	4320	4120	3950
D			*11.2*	*13.5*	*15.7*	*17.7*	*19.7*	*21.5*	*23.0*	*24.3*	*25.4*	*26.6*
U			*10.1*	*12.3*	*14.2*	*16.1*	*17.8*	*19.5*	*20.8*	*22.0*	*23.1*	*24.1*
150x50x3.0RHS	C450L0	8.96	6150	5590	5190	4880	4570	4280	4040	3830	3660	3500
D			*10.4*	*12.6*	*14.6*	*16.4*	*18.0*	*19.2*	*20.4*	*21.5*	*22.6*	*23.6*
U			*9.39*	*11.4*	*13.2*	*14.9*	*16.3*	*17.4*	*18.5*	*19.5*	*20.5*	*21.4*
150x50x2.5RHS	C450L0	7.53	5830	5300	4920	4540	4210	3940	3720	3530	3370	3220
D			*9.82*	*11.9*	*13.8*	*15.3*	*16.5*	*17.7*	*18.8*	*19.8*	*20.8*	*21.7*
U			*8.90*	*10.8*	*12.5*	*13.9*	*15.0*	*16.0*	*17.0*	*18.0*	*18.9*	*19.7*
150x50x2.0RHS	C450L0	6.07	5450	4740	4250	3880	3590	3360	3170	3010	2870	2750
D			*9.18*	*10.6*	*11.9*	*13.1*	*14.1*	*15.1*	*16.0*	*16.9*	*17.7*	*18.5*
U			*8.32*	*9.65*	*10.8*	*11.9*	*12.8*	*13.7*	*14.5*	*15.3*	*16.1*	*16.8*
125x75x6.0RHS	C450L0	16.7	6680	6250	5800	5460	5180	4960	4770	4600	4460	4330
D			*11.3*	*14.0*	*16.3*	*18.4*	*20.4*	*22.3*	*24.1*	*25.8*	*27.5*	*29.2*
U			*10.2*	*12.7*	*14.8*	*16.7*	*18.5*	*20.2*	*21.9*	*23.4*	*25.0*	*26.5*
125x75x5.0RHS	C450L0	14.2	6570	5970	5540	5220	4960	4740	4560	4400	4260	4140
D			11.1	13.4	15.6	17.6	19.5	21.3	23.0	24.7	26.3	27.9
U			10.0	12.2	14.1	15.9	17.7	19.3	20.9	22.4	23.9	25.3
125x75x4.0RHS	C450L0	11.6	6200	5630	5230	4920	4670	4470	4300	4140	3950	3790
D			10.4	12.6	14.7	16.6	18.4	20.1	21.7	23.2	24.4	25.5
U			9.47	11.5	13.3	15.0	16.6	18.2	19.7	21.1	22.1	23.2
125x75x3.0RHS	C450L0	8.96	5740	5220	4840	4560	4330	4070	3840	3650	3480	3330
D			*9.67*	*11.7*	*13.6*	*15.4*	*17.0*	*18.3*	*19.4*	*20.5*	*21.5*	*22.4*
U			*8.77*	*10.6*	*12.3*	*13.9*	*15.4*	*16.6*	*17.6*	*18.6*	*19.5*	*20.3*
125x75x2.5RHS	C450L0	7.53	5440	4940	4440	4060	3760	3520	3320	3150	3010	2880
D			*9.16*	*11.1*	*12.5*	*13.7*	*14.8*	*15.8*	*16.8*	*17.7*	*18.6*	*19.4*
U			*8.31*	*10.1*	*11.3*	*12.4*	*13.4*	*14.3*	*15.2*	*16.0*	*16.9*	*17.6*
125x75x2.0RHS	C450L0	6.07	4830	4200	3760	3440	3180	2980	2810	2670	2540	2440
D			*8.14*	*9.43*	*10.6*	*11.6*	*12.5*	*13.4*	*14.2*	*15.0*	*15.7*	*16.4*
U			*7.38*	*8.55*	*9.57*	*10.5*	*11.3*	*12.1*	*12.9*	*13.6*	*14.2*	*14.9*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-3.39 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 74 m/s
V_{hs} = 47 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4920	4470	4150	3910	3710	3550	3410	3290	3190	3080
D			*8.29*	*10.0*	*11.7*	*13.2*	*14.6*	*15.9*	*17.2*	*18.5*	*19.7*	*20.8*
U			*7.51*	*9.10*	*10.6*	*11.9*	*13.2*	*14.5*	*15.6*	*16.8*	*17.9*	*18.8*
100x50x4.0RHS	C450L0	8.49	4670	4240	3940	3710	3520	3370	3240	3090	2950	2820
D			*7.87*	*9.52*	*11.1*	*12.5*	*13.8*	*15.1*	*16.4*	*17.3*	*18.2*	*19.0*
U			*7.13*	*8.63*	*10.0*	*11.3*	*12.5*	*13.7*	*14.8*	*15.7*	*16.5*	*17.2*
100x50x3.5RHS	C450L0	7.53	4520	4100	3810	3590	3410	3260	3080	2930	2790	2670
D			*7.61*	*9.21*	*10.7*	*12.1*	*13.4*	*14.6*	*15.6*	*16.5*	*17.2*	*18.0*
U			*6.90*	*8.35*	*9.70*	*11.0*	*12.2*	*13.3*	*14.1*	*14.9*	*15.6*	*16.3*
100x50x3.0RHS	C450L0	6.6	4360	3960	3680	3460	3290	3090	2910	2760	2640	2520
D			*7.34*	*8.89*	*10.3*	*11.7*	*12.9*	*13.9*	*14.7*	*15.5*	*16.3*	*17.0*
U			*6.66*	*8.06*	*9.37*	*10.6*	*11.7*	*12.6*	*13.3*	*14.1*	*14.8*	*15.4*
100x50x2.5RHS	C450L0	5.56	4140	3770	3500	3290	3040	2850	2690	2550	2430	2330
D			*6.97*	*8.47*	*9.83*	*11.1*	*11.9*	*12.8*	*13.6*	*14.3*	*15.0*	*15.7*
U			*6.32*	*7.68*	*8.91*	*10.1*	*10.8*	*11.6*	*12.3*	*13.0*	*13.6*	*14.2*
100x50x2.0RHS	C450L0	4.50	3880	3530	3230	2950	2730	2550	2410	2290	2180	2090
D			*6.54*	*7.93*	*9.07*	*9.94*	*10.7*	*11.5*	*12.2*	*12.9*	*13.5*	*14.1*
U			*5.93*	*7.19*	*8.22*	*9.01*	*9.73*	*10.4*	*11.0*	*11.7*	*12.2*	*12.8*
100x50x1.6RHS	C450L0	3.64	3440	2980	2670	2440	2260	2120	2000	1890	1810	1730
D			*5.79*	*6.69*	*7.50*	*8.22*	*8.88*	*9.52*	*10.1*	*10.6*	*11.2*	*11.7*
U			*5.25*	*6.07*	*6.80*	*7.45*	*8.05*	*8.63*	*9.16*	*9.62*	*10.1*	*10.6*
100x100x3.0SHS	C450L0	8.96	5170	4700	4360	4030	3740	3500	3300	3130	2990	2860
D			*8.71*	*10.6*	*12.2*	*13.6*	*14.7*	*15.7*	*16.7*	*17.6*	*18.5*	*19.3*
U			*7.90*	*9.57*	*11.1*	*12.3*	*13.3*	*14.3*	*15.1*	*15.9*	*16.7*	*17.5*
100x100x2.5SHS	C450L0	7.53	4900	4300	3850	3520	3260	3050	2880	2730	2610	2500
D			*8.25*	*9.66*	*10.8*	*11.9*	*12.8*	*13.7*	*14.6*	*15.3*	*16.1*	*16.8*
U			*7.48*	*8.76*	*9.80*	*10.8*	*11.6*	*12.4*	*13.2*	*13.9*	*14.6*	*15.3*
100x100x2.0SHS	C450L0	6.07	4210	3660	3280	2990	2770	2600	2450	2320	2220	2120
D			*7.09*	*8.22*	*9.21*	*10.1*	*10.9*	*11.7*	*12.4*	*13.0*	*13.7*	*14.3*
U			*6.43*	*7.45*	*8.35*	*9.13*	*9.87*	*10.6*	*11.2*	*11.8*	*12.4*	*13.0*
90x90x2.0SHS	C450L0	5.45	3890	3370	3020	2760	2560	2390	2260	2140	2040	1960
D			*6.55*	*7.57*	*8.48*	*9.30*	*10.1*	*10.7*	*11.4*	*12.0*	*12.6*	*13.2*
U			*5.94*	*6.86*	*7.69*	*8.43*	*9.12*	*9.73*	*10.4*	*10.9*	*11.4*	*12.0*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load	Value
5 =	Dead & Live Load $(1.2G + 1.5Q_1)\downarrow$	= 0.668 kPa
8 =	Dead & Person Load $(1.2G + 1.5Q_2)\downarrow$	
6 =	Dead & Wind Load $(0.9G + W_u)\uparrow$	= -3.39 kPa
9 =	Dead & Wind Load $(1.2G + W_u)\downarrow$	= 3.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)	

Load	
V_{hu} =	74 m/s
V_{hs} =	47 m/s
G =	0.244 kPa
$C_{p,n}\uparrow$ =	-1.1
$C_{p,n}\downarrow$ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN

Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	8740	7940	7130	6530	6050	5670	5350	5080	4850	4650
D			*36.8*	*44.6*	*50.0*	*55.0*	*59.4*	*63.7*	*67.6*	*71.3*	*74.9*	*78.3*
U			*33.4*	*40.4*	*45.4*	*49.9*	*53.9*	*57.7*	*61.3*	*64.7*	*67.9*	*71.0*
150x50x5.0RHS	C450L0	14.2	8500	7410	6650	6080	5640	5280	4990	4730	4520	4330
D			*35.8*	*41.6*	*46.7*	*51.2*	*55.4*	*59.3*	*63.0*	*66.4*	*69.8*	*72.9*
U			*32.5*	*37.7*	*42.3*	*46.4*	*50.3*	*53.8*	*57.2*	*60.2*	*63.3*	*66.1*
150x50x4.0RHS	C450L0	11.6	7290	6280	5580	5070	4660	4340	4070	3840	3640	3470
D			*30.7*	*35.3*	*39.2*	*42.7*	*45.8*	*48.7*	*51.4*	*53.9*	*56.2*	*58.4*
U			*27.8*	*32.0*	*35.5*	*38.7*	*41.5*	*44.2*	*46.6*	*48.9*	*51.0*	*53.0*
150x50x3.0RHS	C450L0	8.96	6020	5120	4510	4050	3700	3410	3180	2980	2810	2660
D			*25.4*	*28.7*	*31.7*	*34.1*	*36.4*	*38.3*	*40.2*	*41.8*	*43.4*	*44.8*
U			*23.0*	*26.1*	*28.7*	*30.9*	*33.0*	*34.7*	*36.4*	*37.9*	*39.3*	*40.6*
150x50x2.5RHS	C450L0	7.53	5110	4290	3740	3330	3010	2760	2550	2370	2220	2090
D			*21.5*	*24.1*	*26.2*	*28.0*	*29.6*	*31.0*	*32.2*	*33.3*	*34.3*	*35.2*
U			*19.5*	*21.8*	*23.8*	*25.4*	*26.8*	*28.1*	*29.2*	*30.2*	*31.1*	*31.9*
150x50x2.0RHS	C450L0	6.07	3780	3110	2660	2330	2080	1880	1720	1590	1470	1380
D			*15.9*	*17.5*	*18.7*	*19.6*	*20.4*	*21.1*	*21.7*	*22.3*	*22.7*	*23.2*
U			*14.4*	*15.8*	*16.9*	*17.8*	*18.5*	*19.1*	*19.7*	*20.2*	*20.6*	*21.1*
125x75x6.0RHS	C450L0	16.7	8330	7210	6430	5860	5400	5040	4730	4470	4250	4060
D			*35.1*	*40.5*	*45.1*	*49.4*	*53.1*	*56.6*	*59.8*	*62.7*	*65.6*	*68.4*
U			*31.8*	*36.7*	*40.9*	*44.8*	*48.1*	*51.3*	*54.2*	*56.9*	*59.5*	*62.0*
125x75x5.0RHS	C450L0	14.2	7730	6680	5950	5410	4990	4650	4360	4120	3910	3730
D			32.6	37.5	41.8	45.6	49.0	52.2	55.1	57.8	60.4	62.8
U			29.5	34.0	37.9	41.3	44.5	47.3	49.9	52.4	54.7	57.0
125x75x4.0RHS	C450L0	11.6	6970	6000	5330	4840	4450	4140	3880	3660	3470	3310
D			29.4	33.7	37.4	40.8	43.7	46.5	49.0	51.4	53.6	55.8
U			26.6	30.5	33.9	37.0	39.6	42.2	44.4	46.6	48.6	50.6
125x75x3.0RHS	C450L0	8.96	5930	5070	4480	4050	3710	3430	3210	3020	2850	2710
D			*25.0*	*28.5*	*31.4*	*34.1*	*36.5*	*38.5*	*40.6*	*42.4*	*44.0*	*45.6*
U			*22.6*	*25.8*	*28.5*	*30.9*	*33.1*	*34.9*	*36.8*	*38.4*	*39.9*	*41.4*
125x75x2.5RHS	C450L0	7.53	4880	4140	3630	3260	2970	2740	2540	2380	2240	2120
D			*20.5*	*23.2*	*25.5*	*27.5*	*29.2*	*30.8*	*32.1*	*33.4*	*34.6*	*35.7*
U			*18.6*	*21.1*	*23.1*	*24.9*	*26.5*	*27.9*	*29.1*	*30.3*	*31.4*	*32.4*
125x75x2.0RHS	C450L0	6.07	3740	3120	2710	2400	2160	1980	1820	1690	1580	1480
D			*15.7*	*17.5*	*19.0*	*20.2*	*21.2*	*22.2*	*23.0*	*23.7*	*24.4*	*24.9*
U			*14.3*	*15.9*	*17.2*	*18.3*	*19.2*	*20.2*	*20.8*	*21.5*	*22.1*	*22.6*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-3.39 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 74 m/s
V_{hs} = 47 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	6080	5280	4740	4330	4020	3760	3550	3370	3210	3080
D			*25.6*	*29.6*	*33.3*	*36.5*	*39.5*	*42.2*	*44.8*	*47.3*	*49.6*	*51.9*
U			*23.2*	*26.9*	*30.2*	*33.1*	*35.8*	*38.3*	*40.7*	*42.9*	*44.9*	*47.0*
100x50x4.0RHS	C450L0	8.49	5590	4860	4350	3980	3690	3450	3260	3090	2950	2820
D			*23.5*	*27.3*	*30.5*	*33.5*	*36.3*	*38.7*	*41.2*	*43.4*	*45.5*	*47.5*
U			*21.3*	*24.7*	*27.7*	*30.4*	*32.9*	*35.1*	*37.3*	*39.3*	*41.3*	*43.1*
100x50x3.5RHS	C450L0	7.53	5300	4600	4120	3770	3490	3270	3080	2930	2790	2670
D			*22.3*	*25.8*	*28.9*	*31.8*	*34.3*	*36.7*	*38.9*	*41.1*	*43.1*	*45.0*
U			*20.2*	*23.4*	*26.2*	*28.8*	*31.1*	*33.3*	*35.3*	*37.3*	*39.1*	*40.8*
100x50x3.0RHS	C450L0	6.6	4710	4060	3600	3270	3010	2800	2630	2480	2350	2240
D			*19.8*	*22.8*	*25.3*	*27.5*	*29.6*	*31.4*	*33.2*	*34.8*	*36.3*	*37.7*
U			*18.0*	*20.7*	*22.9*	*25.0*	*26.8*	*28.5*	*30.1*	*31.6*	*32.9*	*34.2*
100x50x2.5RHS	C450L0	5.56	4210	3600	3190	2880	2640	2450	2290	2150	2040	1930
D			*17.7*	*20.2*	*22.4*	*24.3*	*25.9*	*27.5*	*28.9*	*30.2*	*31.5*	*32.5*
U			*16.1*	*18.3*	*20.3*	*22.0*	*23.5*	*24.9*	*26.2*	*27.4*	*28.6*	*29.5*
100x50x2.0RHS	C450L0	4.50	3530	2990	2620	2340	2130	1960	1820	1710	1600	1520
D			*14.9*	*16.8*	*18.4*	*19.7*	*20.9*	*22.0*	*23.0*	*24.0*	*24.7*	*25.6*
U			*13.5*	*15.2*	*16.7*	*17.9*	*19.0*	*20.0*	*20.8*	*21.8*	*22.4*	*23.2*
100x50x1.6RHS	C450L0	3.64	2650	2210	1910	1690	1530	1390	1280	1190	1110	1040
D			*11.2*	*12.4*	*13.4*	*14.2*	*15.0*	*15.6*	*16.2*	*16.7*	*17.1*	*17.5*
U			*10.1*	*11.3*	*12.2*	*12.9*	*13.6*	*14.2*	*14.7*	*15.1*	*15.5*	*15.9*
100x100x3.0SHS	C450L0	8.96	4520	3800	3300	2940	2660	2440	2250	2100	1960	1850
D			*19.0*	*21.3*	*23.2*	*24.8*	*26.1*	*27.4*	*28.4*	*29.5*	*30.3*	*31.2*
U			*17.3*	*19.3*	*21.0*	*22.5*	*23.7*	*24.8*	*25.8*	*26.7*	*27.4*	*28.3*
100x100x2.5SHS	C450L0	7.53	4060	3430	2990	2670	2420	2220	2060	1920	1800	1700
D			*17.1*	*19.3*	*21.0*	*22.5*	*23.8*	*24.9*	*26.0*	*27.0*	*27.8*	*28.6*
U			*15.5*	*17.5*	*19.0*	*20.4*	*21.6*	*22.6*	*23.6*	*24.4*	*25.2*	*26.0*
100x100x2.0SHS	C450L0	6.07	3560	3020	2640	2370	2150	1980	1840	1720	1620	1530
D			*15.0*	*17.0*	*18.5*	*20.0*	*21.1*	*22.2*	*23.2*	*24.1*	*25.0*	*25.8*
U			*13.6*	*15.4*	*16.8*	*18.1*	*19.2*	*20.2*	*21.1*	*21.9*	*22.7*	*23.4*
90x90x2.0SHS	C450L0	5.45	3330	2820	2480	2220	2020	1870	1730	1620	1530	1440
D			*14.0*	*15.8*	*17.4*	*18.7*	*19.8*	*21.0*	*21.9*	*22.7*	*23.6*	*24.3*
U			*12.7*	*14.4*	*15.8*	*17.0*	*18.0*	*19.0*	*19.8*	*20.6*	*21.4*	*22.0*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-3.39 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	3.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 74 m/s
V_{hs} = 47 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	5560	5230	4980	4780	4620	4480	4350	4250	4150	4070
			11.3	*14.2*	*16.9*	*19.5*	*22.0*	*24.4*	*26.6*	*28.9*	*31.0*	*33.2*
			7.02	*8.80*	*10.5*	*12.1*	*13.6*	*15.1*	*16.5*	*17.9*	*19.2*	*20.5*
150x50x5.0RHS	C450L0	14.2	5420	5090	4840	4640	4480	4340	4220	4120	4030	3940
			11.0	*13.8*	*16.4*	*18.9*	*21.3*	*23.6*	*25.8*	*28.0*	*30.1*	*32.1*
			6.84	*8.56*	*10.2*	*11.7*	*13.2*	*14.6*	*16.0*	*17.3*	*18.6*	*19.9*
150x50x4.0RHS	C450L0	11.6	5220	4900	4660	4460	4310	4170	4060	3930	3750	3590
			10.6	*13.3*	*15.8*	*18.2*	*20.5*	*22.7*	*24.8*	*26.7*	*28.0*	*29.3*
			6.59	*8.24*	*9.80*	*11.3*	*12.7*	*14.0*	*15.4*	*16.5*	*17.4*	*18.1*
150x50x3.0RHS	C450L0	8.96	4980	4660	4420	4240	4080	3900	3680	3490	3330	3190
			10.2	*12.7*	*15.0*	*17.3*	*19.4*	*21.2*	*22.5*	*23.7*	*24.9*	*26.0*
			6.28	*7.84*	*9.30*	*10.7*	*12.0*	*13.1*	*13.9*	*14.7*	*15.4*	*16.1*
150x50x2.5RHS	C450L0	7.53	4800	4490	4260	4080	3830	3590	3380	3210	3060	2930
			9.78	*12.2*	*14.5*	*16.6*	*18.2*	*19.5*	*20.7*	*21.8*	*22.9*	*23.9*
			6.06	*7.55*	*8.96*	*10.3*	*11.3*	*12.1*	*12.8*	*13.5*	*14.2*	*14.8*
150x50x2.0RHS	C450L0	6.07	4580	4280	3860	3530	3270	3060	2890	2740	2610	2500
			9.34	*11.6*	*13.1*	*14.4*	*15.6*	*16.6*	*17.7*	*18.6*	*19.5*	*20.4*
			5.78	*7.20*	*8.12*	*8.91*	*9.63*	*10.3*	*10.9*	*11.5*	*12.1*	*12.6*
125x75x6.0RHS	C450L0	16.7	5300	4980	4740	4550	4400	4260	4150	4050	3960	3870
			10.8	*13.5*	*16.1*	*18.5*	*20.9*	*23.2*	*25.4*	*27.5*	*29.6*	*31.6*
			6.69	*8.38*	*9.97*	*11.5*	*13.0*	*14.3*	*15.7*	*17.0*	*18.3*	*19.5*
125x75x5.0RHS	C450L0	14.2	5160	4840	4610	4420	4260	4130	4020	3920	3830	3750
			10.5	13.2	15.7	18.0	20.3	22.5	24.6	26.6	28.6	30.6
			6.51	8.14	9.70	11.2	12.5	13.9	15.2	16.5	17.7	18.9
125x75x4.0RHS	C450L0	11.6	4970	4660	4430	4240	4090	3970	3860	3760	3600	3450
			10.1	12.7	15.1	17.3	19.5	21.6	23.6	25.5	26.9	28.1
			6.27	7.84	9.32	10.7	12.0	13.4	14.6	15.8	16.7	17.4
125x75x3.0RHS	C450L0	8.96	4730	4420	4200	4020	3880	3710	3500	3320	3160	3030
			9.64	*12.0*	*14.3*	*16.4*	*18.5*	*20.2*	*21.4*	*22.6*	*23.6*	*24.7*
			5.97	*7.44*	*8.83*	*10.1*	*11.4*	*12.5*	*13.2*	*14.0*	*14.6*	*15.3*
125x75x2.5RHS	C450L0	7.53	4560	4260	4040	3690	3420	3200	3020	2870	2740	2620
			9.30	*11.6*	*13.7*	*15.0*	*16.3*	*17.4*	*18.5*	*19.5*	*20.5*	*21.4*
			5.75	*7.17*	*8.50*	*9.31*	*10.1*	*10.8*	*11.4*	*12.1*	*12.7*	*13.2*
125x75x2.0RHS	C450L0	6.07	4350	3820	3420	3130	2900	2710	2560	2430	2310	2220
			8.87	*10.4*	*11.6*	*12.8*	*13.8*	*14.7*	*15.7*	*16.5*	*17.3*	*18.1*
			5.49	*6.43*	*7.19*	*7.90*	*8.54*	*9.12*	*9.69*	*10.2*	*10.7*	*11.2*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.80 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.53 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 74 m/s
V_{hs} = 47 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

Roof - masonry tiles and ceiling - external
Roof pitch - over 20 up to 35 degrees
C3

DuraGal Plus

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4190	3930	3730	3570	3400	3260	3140	3030	2920	2800
D			*8.54*	*10.7*	*12.7*	*14.6*	*16.2*	*17.7*	*19.2*	*20.6*	*21.8*	*22.8*
U			*5.29*	*6.61*	*7.84*	*9.01*	*10.0*	*11.0*	*11.9*	*12.7*	*13.5*	*14.1*
100x50x4.0RHS	C450L0	8.49	4050	3790	3600	3400	3240	3100	2960	2810	2680	2570
D			*8.26*	*10.3*	*12.2*	*13.9*	*15.4*	*16.9*	*18.1*	*19.1*	*20.0*	*21.0*
U			*5.11*	*6.38*	*7.57*	*8.58*	*9.54*	*10.4*	*11.2*	*11.8*	*12.4*	*13.0*
100x50x3.5RHS	C450L0	7.53	3960	3710	3490	3290	3130	2970	2810	2660	2540	2430
D			*8.07*	*10.1*	*11.9*	*13.4*	*14.9*	*16.1*	*17.2*	*18.1*	*19.0*	*19.8*
U			*5.00*	*6.24*	*7.34*	*8.30*	*9.22*	*9.99*	*10.6*	*11.2*	*11.8*	*12.3*
100x50x3.0RHS	C450L0	6.6	3870	3620	3380	3190	3000	2810	2650	2510	2400	2300
D			*7.89*	*9.84*	*11.5*	*13.0*	*14.3*	*15.3*	*16.2*	*17.1*	*17.9*	*18.8*
U			*4.88*	*6.09*	*7.11*	*8.05*	*8.83*	*9.46*	*10.0*	*10.6*	*11.1*	*11.6*
100x50x2.5RHS	C450L0	5.56	3730	3450	3220	2990	2770	2590	2440	2320	2210	2120
D			*7.60*	*9.38*	*10.9*	*12.2*	*13.2*	*14.1*	*14.9*	*15.8*	*16.5*	*17.3*
U			*4.71*	*5.80*	*6.77*	*7.55*	*8.16*	*8.72*	*9.24*	*9.76*	*10.2*	*10.7*
100x50x2.0RHS	C450L0	4.50	3560	3240	2930	2680	2480	2320	2190	2080	1980	1900
D			*7.26*	*8.81*	*9.95*	*10.9*	*11.8*	*12.6*	*13.4*	*14.1*	*14.8*	*15.5*
U			*4.49*	*5.45*	*6.16*	*6.76*	*7.30*	*7.81*	*8.29*	*8.75*	*9.16*	*9.59*
100x50x1.6RHS	C450L0	3.64	3130	2720	2430	2220	2060	1920	1810	1720	1640	1570
D			*6.38*	*7.39*	*8.26*	*9.05*	*9.80*	*10.4*	*11.1*	*11.7*	*12.3*	*12.8*
U			*3.95*	*4.58*	*5.11*	*5.60*	*6.07*	*6.46*	*6.85*	*7.23*	*7.59*	*7.92*
100x100x3.0SHS	C450L0	8.96	4370	4090	3880	3670	3400	3180	3000	2850	2720	2600
D			*8.91*	*11.1*	*13.2*	*15.0*	*16.2*	*17.3*	*18.3*	*19.4*	*20.3*	*21.2*
U			*5.51*	*6.88*	*8.16*	*9.26*	*10.0*	*10.7*	*11.4*	*12.0*	*12.6*	*13.1*
100x100x2.5SHS	C450L0	7.53	4210	3910	3510	3200	2970	2780	2620	2490	2370	2270
D			*8.58*	*10.6*	*11.9*	*13.0*	*14.1*	*15.1*	*16.0*	*16.9*	*17.7*	*18.5*
U			*5.31*	*6.58*	*7.38*	*8.08*	*8.74*	*9.35*	*9.92*	*10.5*	*11.0*	*11.5*
100x100x2.0SHS	C450L0	6.07	3830	3330	2980	2720	2520	2360	2230	2110	2020	1930
D			*7.81*	*9.05*	*10.1*	*11.1*	*12.0*	*12.8*	*13.6*	*14.3*	*15.1*	*15.7*
U			*4.83*	*5.60*	*6.27*	*6.86*	*7.42*	*7.94*	*8.44*	*8.88*	*9.35*	*9.74*
90x90x2.0SHS	C450L0	5.45	3540	3070	2750	2510	2330	2180	2050	1950	1860	1780
D			*7.22*	*8.34*	*9.34*	*10.2*	*11.1*	*11.9*	*12.5*	*13.2*	*13.9*	*14.5*
U			*4.47*	*5.17*	*5.78*	*6.33*	*6.86*	*7.34*	*7.76*	*8.20*	*8.61*	*8.98*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.80 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.53 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 74 m/s
V_{hs} = 47 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	6930	6520	6210	5950	5520	5170	4870	4630	4420	4230
D			*35.3*	*44.3*	*52.7*	*60.6*	*65.6*	*70.3*	*74.5*	*78.7*	*82.6*	*86.2*
U			*21.9*	*27.4*	*32.7*	*37.5*	*40.6*	*43.5*	*46.1*	*48.7*	*51.1*	*53.4*
150x50x5.0RHS	C450L0	14.2	6750	6340	6030	5540	5140	4810	4540	4310	4110	3940
D			*34.4*	*43.1*	*51.2*	*56.5*	*61.1*	*65.4*	*69.4*	*73.2*	*76.8*	*80.3*
U			*21.3*	*26.7*	*31.7*	*35.0*	*37.8*	*40.5*	*43.0*	*45.3*	*47.5*	*49.7*
150x50x4.0RHS	C450L0	11.6	6510	5680	5040	4570	4200	3910	3660	3450	3270	3120
D			*33.2*	*38.6*	*42.8*	*46.6*	*49.9*	*53.1*	*56.0*	*58.6*	*61.1*	*63.6*
U			*20.5*	*23.9*	*26.5*	*28.8*	*30.9*	*32.9*	*34.6*	*36.3*	*37.8*	*39.4*
150x50x3.0RHS	C450L0	8.96	5410	4590	4030	3620	3300	3040	2820	2640	2490	2350
D			*27.6*	*31.2*	*34.2*	*36.9*	*39.2*	*41.3*	*43.1*	*44.8*	*46.5*	*47.9*
U			*17.1*	*19.3*	*21.2*	*22.8*	*24.3*	*25.6*	*26.7*	*27.8*	*28.8*	*29.7*
150x50x2.5RHS	C450L0	7.53	4560	3810	3310	2940	2650	2430	2240	2080	1940	1830
D			*23.2*	*25.9*	*28.1*	*30.0*	*31.5*	*33.0*	*34.2*	*35.3*	*36.3*	*37.3*
U			*14.4*	*16.0*	*17.4*	*18.5*	*19.5*	*20.4*	*21.2*	*21.9*	*22.4*	*23.1*
150x50x2.0RHS	C450L0	6.07	3320	2720	2320	2030	1800	1630	1490	1370	1270	1180
D			*16.9*	*18.5*	*19.7*	*20.7*	*21.4*	*22.2*	*22.8*	*23.3*	*23.7*	*24.1*
U			*10.5*	*11.4*	*12.2*	*12.8*	*13.2*	*13.7*	*14.1*	*14.4*	*14.7*	*14.9*
125x75x6.0RHS	C450L0	16.7	6600	6210	5830	5300	4890	4550	4270	4040	3830	3660
D			*33.6*	*42.2*	*49.5*	*54.0*	*58.1*	*61.8*	*65.3*	*68.6*	*71.6*	*74.6*
U			*20.8*	*26.1*	*30.7*	*33.4*	*36.0*	*38.3*	*40.4*	*42.5*	*44.3*	*46.2*
125x75x5.0RHS	C450L0	14.2	6420	6030	5390	4890	4510	4190	3930	3710	3530	3360
D			32.7	41.0	45.8	49.8	53.6	56.9	60.1	63.0	66.0	68.5
U			20.3	25.4	28.3	30.9	33.2	35.2	37.2	39.0	40.8	42.4
125x75x4.0RHS	C450L0	11.6	6190	5430	4820	4360	4010	3730	3490	3290	3120	2970
D			31.5	36.9	40.9	44.4	47.7	50.7	53.4	55.9	58.3	60.5
U			19.5	22.8	25.3	27.5	29.5	31.4	33.0	34.6	36.1	37.5
125x75x3.0RHS	C450L0	8.96	5350	4570	4030	3630	3320	3070	2870	2690	2540	2410
D			*27.3*	*31.1*	*34.2*	*37.0*	*39.5*	*41.7*	*43.9*	*45.7*	*47.5*	*49.1*
U			*16.9*	*19.2*	*21.2*	*22.9*	*24.4*	*25.8*	*27.2*	*28.3*	*29.4*	*30.4*
125x75x2.5RHS	C450L0	7.53	4380	3710	3240	2910	2640	2430	2250	2110	1980	1870
D			*22.3*	*25.2*	*27.5*	*29.7*	*31.4*	*33.0*	*34.4*	*35.8*	*37.0*	*38.1*
U			*13.8*	*15.6*	*17.0*	*18.4*	*19.4*	*20.4*	*21.3*	*22.2*	*22.9*	*23.6*
125x75x2.0RHS	C450L0	6.07	3320	2760	2390	2110	1900	1730	1590	1470	1370	1290
D			*16.9*	*18.8*	*20.3*	*21.5*	*22.6*	*23.5*	*24.3*	*25.0*	*25.6*	*26.3*
U			*10.5*	*11.6*	*12.6*	*13.3*	*14.0*	*14.6*	*15.0*	*15.5*	*15.8*	*16.3*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.80 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.53 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 74 m/s
V_{hs} = 47 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	5220	4810	4320	3950	3660	3420	3230	3070	2920	2800
D			*26.6*	*32.7*	*36.7*	*40.3*	*43.5*	*46.5*	*49.4*	*52.2*	*54.6*	*57.1*
U			*16.5*	*20.2*	*22.7*	*24.9*	*26.9*	*28.8*	*30.6*	*32.3*	*33.8*	*35.3*
100x50x4.0RHS	C450L0	8.49	5050	4420	3960	3620	3360	3140	2960	2810	2680	2570
D			*25.7*	*30.0*	*33.6*	*36.9*	*40.0*	*42.7*	*45.3*	*47.7*	*50.1*	*52.4*
U			*15.9*	*18.6*	*20.8*	*22.8*	*24.7*	*26.4*	*28.0*	*29.5*	*31.0*	*32.4*
100x50x3.5RHS	C450L0	7.53	4830	4190	3750	3430	3180	2970	2810	2660	2540	2430
D			*24.6*	*28.5*	*31.9*	*35.0*	*37.8*	*40.4*	*43.0*	*45.2*	*47.5*	*49.5*
U			*15.2*	*17.6*	*19.7*	*21.6*	*23.4*	*25.0*	*26.6*	*28.0*	*29.4*	*30.7*
100x50x3.0RHS	C450L0	6.6	4270	3670	3260	2950	2710	2520	2360	2230	2110	2010
D			*21.8*	*24.9*	*27.7*	*30.1*	*32.2*	*34.2*	*36.1*	*37.9*	*39.4*	*41.0*
U			*13.5*	*15.4*	*17.1*	*18.6*	*19.9*	*21.2*	*22.3*	*23.4*	*24.4*	*25.4*
100x50x2.5RHS	C450L0	5.56	3800	3240	2870	2590	2370	2190	2050	1920	1820	1730
D			*19.4*	*22.0*	*24.4*	*26.4*	*28.2*	*29.8*	*31.3*	*32.6*	*34.0*	*35.3*
U			*12.0*	*13.6*	*15.1*	*16.3*	*17.4*	*18.4*	*19.4*	*20.2*	*21.1*	*21.8*
100x50x2.0RHS	C450L0	4.50	3160	2670	2330	2090	1890	1740	1610	1510	1420	1340
D			*16.1*	*18.1*	*19.8*	*21.3*	*22.5*	*23.6*	*24.6*	*25.7*	*26.5*	*27.3*
U			*9.97*	*11.2*	*12.3*	*13.2*	*13.9*	*14.6*	*15.2*	*15.9*	*16.4*	*16.9*
100x50x1.6RHS	C450L0	3.64	2350	1950	1680	1490	1340	1220	1120	1040	960	900
D			*12.0*	*13.2*	*14.3*	*15.2*	*15.9*	*16.6*	*17.1*	*17.7*	*17.9*	*18.3*
U			*7.41*	*8.20*	*8.83*	*9.40*	*9.86*	*10.3*	*10.6*	*10.9*	*11.1*	*11.4*
100x100x3.0SHS	C450L0	8.96	4030	3370	2930	2600	2350	2140	1980	1840	1720	1610
D			*20.5*	*22.9*	*24.9*	*26.5*	*27.9*	*29.1*	*30.3*	*31.3*	*32.1*	*32.8*
U			*12.7*	*14.2*	*15.4*	*16.4*	*17.3*	*18.0*	*18.7*	*19.3*	*19.9*	*20.3*
100x100x2.5SHS	C450L0	7.53	3630	3050	2660	2370	2140	1960	1820	1690	1580	1490
D			*18.5*	*20.7*	*22.6*	*24.2*	*25.4*	*26.6*	*27.8*	*28.7*	*29.5*	*30.4*
U			*11.5*	*12.8*	*14.0*	*15.0*	*15.8*	*16.5*	*17.2*	*17.8*	*18.3*	*18.8*
100x100x2.0SHS	C450L0	6.07	3190	2690	2350	2100	1910	1760	1630	1520	1430	1350
D			*16.3*	*18.3*	*20.0*	*21.4*	*22.7*	*23.9*	*24.9*	*25.8*	*26.7*	*27.5*
U			*10.1*	*11.3*	*12.4*	*13.2*	*14.1*	*14.8*	*15.4*	*16.0*	*16.5*	*17.0*
90x90x2.0SHS	C450L0	5.45	2990	2530	2210	1980	1800	1660	1540	1440	1350	1280
D			*15.2*	*17.2*	*18.8*	*20.2*	*21.4*	*22.6*	*23.5*	*24.5*	*25.2*	*26.1*
U			*9.43*	*10.6*	*11.6*	*12.5*	*13.2*	*14.0*	*14.6*	*15.1*	*15.6*	*16.2*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-2.80 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.53 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	74 m/s
V_{hs} =	47 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.1
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	5830	5300	4920	4630	4400	4200	4000	3800	3620	3460
D			*13.0*	*15.7*	*18.3*	*20.6*	*22.9*	*25.0*	*26.7*	*28.2*	*29.6*	*30.8*
U			*18.1*	*21.9*	*25.4*	*28.7*	*31.8*	*34.7*	*37.2*	*39.2*	*41.1*	*42.8*
150x50x5.0RHS	C450L0	14.2	5580	5070	4710	4430	4210	3950	3720	3530	3360	3220
D			*12.4*	*15.1*	*17.5*	*19.7*	*21.9*	*23.5*	*24.9*	*26.2*	*27.5*	*28.7*
U			*17.3*	*20.9*	*24.3*	*27.4*	*30.4*	*32.6*	*34.6*	*36.4*	*38.1*	*39.9*
150x50x4.0RHS	C450L0	11.6	5270	4790	4450	4150	3840	3590	3390	3210	3060	2930
D			*11.7*	*14.2*	*16.5*	*18.5*	*20.0*	*21.3*	*22.7*	*23.8*	*25.0*	*26.1*
U			*16.3*	*19.8*	*23.0*	*25.7*	*27.7*	*29.6*	*31.5*	*33.1*	*34.7*	*36.3*
150x50x3.0RHS	C450L0	8.96	4890	4440	4030	3680	3410	3180	3000	2850	2710	2600
D			*10.9*	*13.2*	*15.0*	*16.4*	*17.7*	*18.9*	*20.1*	*21.2*	*22.1*	*23.2*
U			*15.1*	*18.3*	*20.8*	*22.8*	*24.6*	*26.3*	*27.9*	*29.4*	*30.8*	*32.2*
150x50x2.5RHS	C450L0	7.53	4630	4150	3710	3380	3130	2930	2760	2620	2500	2390
D			*10.3*	*12.3*	*13.8*	*15.1*	*16.3*	*17.4*	*18.5*	*19.5*	*20.4*	*21.3*
U			*14.3*	*17.1*	*19.1*	*20.9*	*22.6*	*24.2*	*25.6*	*27.0*	*28.4*	*29.6*
150x50x2.0RHS	C450L0	6.07	4090	3540	3160	2880	2670	2500	2350	2230	2130	2040
D			*9.12*	*10.5*	*11.7*	*12.8*	*13.9*	*14.9*	*15.7*	*16.6*	*17.4*	*18.2*
U			*12.7*	*14.6*	*16.3*	*17.8*	*19.3*	*20.6*	*21.8*	*23.0*	*24.2*	*25.3*
125x75x6.0RHS	C450L0	16.7	5460	4960	4610	4340	4120	3940	3790	3650	3480	3330
D			*12.2*	*14.7*	*17.1*	*19.3*	*21.4*	*23.4*	*25.3*	*27.1*	*28.4*	*29.7*
U			*16.9*	*20.5*	*23.8*	*26.9*	*29.8*	*32.5*	*35.2*	*37.7*	*39.5*	*41.2*
125x75x5.0RHS	C450L0	14.2	5220	4750	4410	4150	3940	3770	3570	3390	3230	3090
D			11.6	14.1	16.4	18.5	20.5	22.4	23.9	25.2	26.4	27.5
U			16.2	19.6	22.8	25.7	28.5	31.1	33.2	35.0	36.7	38.3
125x75x4.0RHS	C450L0	11.6	4930	4480	4160	3910	3690	3450	3250	3080	2940	2810
D			11.0	13.3	15.5	17.4	19.2	20.5	21.7	22.9	24.0	25.1
U			15.3	18.5	21.5	24.2	26.7	28.5	30.2	31.8	33.4	34.8
125x75x3.0RHS	C450L0	8.96	4570	4150	3840	3500	3240	3030	2860	2710	2580	2470
D			*10.2*	*12.3*	*14.3*	*15.6*	*16.8*	*18.0*	*19.1*	*20.1*	*21.1*	*22.0*
U			*14.1*	*17.1*	*19.8*	*21.7*	*23.4*	*25.0*	*26.6*	*28.0*	*29.3*	*30.6*
125x75x2.5RHS	C450L0	7.53	4290	3710	3310	3020	2800	2620	2470	2340	2230	2130
D			*9.56*	*11.0*	*12.3*	*13.5*	*14.6*	*15.6*	*16.5*	*17.4*	*18.2*	*19.0*
U			*13.3*	*15.3*	*17.1*	*18.7*	*20.2*	*21.6*	*22.9*	*24.1*	*25.3*	*26.4*
125x75x2.0RHS	C450L0	6.07	3620	3130	2800	2550	2360	2210	2080	1980	1880	1800
D			*8.07*	*9.30*	*10.4*	*11.4*	*12.3*	*13.1*	*13.9*	*14.7*	*15.4*	*16.0*
U			*11.2*	*12.9*	*14.4*	*15.8*	*17.0*	*18.2*	*19.3*	*20.4*	*21.3*	*22.3*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-6.88 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.95 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 86 m/s
V_{hs} = 55 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.6
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	3910	3550	3300	3100	2950	2800	2640	2500	2390	2280
D			*8.71*	*10.5*	*12.3*	*13.8*	*15.3*	*16.6*	*17.7*	*18.6*	*19.5*	*20.3*
U			*12.1*	*14.7*	*17.0*	*19.2*	*21.3*	*23.1*	*24.5*	*25.8*	*27.1*	*28.2*
100x50x4.0RHS	C450L0	8.49	3710	3370	3130	2950	2740	2570	2420	2290	2190	2090
D			*8.27*	*10.0*	*11.6*	*13.1*	*14.2*	*15.3*	*16.2*	*17.0*	*17.9*	*18.6*
U			*11.5*	*13.9*	*16.2*	*18.3*	*19.8*	*21.2*	*22.5*	*23.6*	*24.9*	*25.9*
100x50x3.5RHS	C450L0	7.53	3590	3260	3030	2810	2600	2430	2290	2170	2070	1980
D			*8.00*	*9.69*	*11.3*	*12.5*	*13.5*	*14.4*	*15.3*	*16.1*	*16.9*	*17.7*
U			*11.1*	*13.5*	*15.6*	*17.4*	*18.8*	*20.1*	*21.3*	*22.4*	*23.5*	*24.5*
100x50x3.0RHS	C450L0	6.6	3470	3150	2900	2650	2450	2290	2160	2050	1950	1870
D			*7.73*	*9.36*	*10.8*	*11.8*	*12.7*	*13.6*	*14.4*	*15.2*	*15.9*	*16.7*
U			*10.7*	*13.0*	*15.0*	*16.4*	*17.7*	*18.9*	*20.1*	*21.2*	*22.1*	*23.2*
100x50x2.5RHS	C450L0	5.56	3290	2990	2670	2440	2260	2110	1990	1890	1800	1720
D			*7.33*	*8.89*	*9.92*	*10.9*	*11.8*	*12.5*	*13.3*	*14.0*	*14.7*	*15.3*
U			*10.2*	*12.3*	*13.8*	*15.1*	*16.3*	*17.4*	*18.5*	*19.5*	*20.4*	*21.3*
100x50x2.0RHS	C450L0	4.50	3090	2680	2400	2190	2020	1890	1780	1690	1610	1540
D			*6.89*	*7.96*	*8.91*	*9.76*	*10.5*	*11.2*	*11.9*	*12.6*	*13.2*	*13.7*
U			*9.57*	*11.1*	*12.4*	*13.6*	*14.6*	*15.6*	*16.5*	*17.4*	*18.3*	*19.1*
100x50x1.6RHS	C450L0	3.64	2560	2220	1980	1810	1670	1570	1480	1400	1330	1280
D			*5.71*	*6.60*	*7.35*	*8.07*	*8.68*	*9.33*	*9.90*	*10.4*	*10.9*	*11.4*
U			*7.93*	*9.16*	*10.2*	*11.2*	*12.1*	*13.0*	*13.7*	*14.4*	*15.1*	*15.9*
100x100x3.0SHS	C450L0	8.96	4110	3690	3300	3010	2780	2600	2450	2330	2220	2120
D			*9.16*	*11.0*	*12.3*	*13.4*	*14.5*	*15.5*	*16.4*	*17.3*	*18.1*	*18.9*
U			*12.7*	*15.2*	*17.0*	*18.6*	*20.1*	*21.5*	*22.8*	*24.0*	*25.2*	*26.3*
100x100x2.5SHS	C450L0	7.53	3720	3210	2870	2620	2430	2270	2140	2030	1930	1850
D			*8.29*	*9.54*	*10.7*	*11.7*	*12.6*	*13.5*	*14.3*	*15.1*	*15.8*	*16.5*
U			*11.5*	*13.3*	*14.8*	*16.2*	*17.6*	*18.7*	*19.9*	*21.0*	*21.9*	*22.9*
100x100x2.0SHS	C450L0	6.07	3150	2730	2440	2220	2060	1930	1810	1720	1640	1570
D			*7.02*	*8.11*	*9.06*	*9.90*	*10.7*	*11.5*	*12.1*	*12.8*	*13.4*	*14.0*
U			*9.75*	*11.3*	*12.6*	*13.7*	*14.9*	*15.9*	*16.8*	*17.8*	*18.6*	*19.4*
90x90x2.0SHS	C450L0	5.45	2900	2510	2250	2050	1900	1770	1670	1590	1510	1450
D			*6.46*	*7.46*	*8.36*	*9.14*	*9.88*	*10.5*	*11.2*	*11.8*	*12.3*	*12.9*
U			*8.98*	*10.4*	*11.6*	*12.7*	*13.7*	*14.6*	*15.5*	*16.4*	*17.1*	*18.0*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-6.88 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.95 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	86 m/s
V_{hs} =	55 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	6990	6040	5390	4910	4540	4250	4000	3800	3620	3460
D			*38.9*	*44.9*	*50.1*	*54.7*	*59.0*	*63.1*	*66.9*	*70.6*	*74.0*	*77.1*
U			*54.1*	*62.3*	*69.5*	*76.0*	*82.0*	*87.7*	*92.9*	*98.0*	*102.7*	*107.1*
150x50x5.0RHS	C450L0	14.2	6490	5610	5010	4570	4220	3950	3720	3530	3360	3220
D			*36.2*	*41.7*	*46.5*	*50.9*	*54.9*	*58.7*	*62.2*	*65.6*	*68.6*	*71.8*
U			*50.2*	*57.9*	*64.6*	*70.7*	*76.2*	*81.5*	*86.4*	*91.1*	*95.4*	*99.7*
150x50x4.0RHS	C450L0	11.6	5900	5100	4560	4150	3840	3590	3390	3210	3060	2930
D			*32.9*	*37.9*	*42.3*	*46.2*	*49.9*	*53.3*	*56.7*	*59.6*	*62.5*	*65.3*
U			*45.7*	*52.6*	*58.8*	*64.2*	*69.4*	*74.1*	*78.7*	*82.8*	*86.8*	*90.7*
150x50x3.0RHS	C450L0	8.96	5150	4360	3830	3430	3120	2880	2670	2500	2350	2220
D			*28.7*	*32.4*	*35.6*	*38.2*	*40.6*	*42.8*	*44.6*	*46.4*	*48.0*	*49.5*
U			*39.9*	*45.0*	*49.4*	*53.1*	*56.3*	*59.4*	*62.0*	*64.5*	*66.7*	*68.7*
150x50x2.5RHS	C450L0	7.53	4310	3610	3120	2770	2500	2280	2100	1950	1820	1710
D			*24.0*	*26.8*	*29.0*	*30.9*	*32.5*	*33.9*	*35.1*	*36.2*	*37.2*	*38.1*
U			*33.4*	*37.3*	*40.2*	*42.9*	*45.2*	*47.1*	*48.8*	*50.3*	*51.7*	*52.9*
150x50x2.0RHS	C450L0	6.07	3130	2550	2170	1900	1690	1520	1380	1270	1180	1100
D			*17.4*	*18.9*	*20.2*	*21.2*	*22.0*	*22.6*	*23.1*	*23.6*	*24.1*	*24.5*
U			*24.2*	*26.3*	*28.0*	*29.4*	*30.5*	*31.4*	*32.0*	*32.8*	*33.5*	*34.1*
125x75x6.0RHS	C450L0	16.7	6720	5800	5180	4720	4370	4080	3850	3650	3480	3330
D			*37.4*	*43.1*	*48.1*	*52.6*	*56.8*	*60.6*	*64.4*	*67.8*	*71.1*	*74.2*
U			*52.0*	*59.9*	*66.8*	*73.1*	*78.9*	*84.2*	*89.4*	*94.2*	*98.8*	*103.1*
125x75x5.0RHS	C450L0	14.2	6230	5380	4810	4380	4060	3790	3570	3390	3230	3090
D			34.7	40.0	44.7	48.8	52.8	56.3	59.7	63.0	66.0	68.9
U			48.2	55.5	62.1	67.8	73.3	78.2	82.9	87.5	91.7	95.7
125x75x4.0RHS	C450L0	11.6	5660	4890	4370	3990	3690	3450	3250	3080	2940	2810
D			31.5	36.3	40.6	44.5	48.0	51.3	54.3	57.2	60.1	62.6
U			43.8	50.5	56.4	61.8	66.6	71.2	75.5	79.5	83.4	87.0
125x75x3.0RHS	C450L0	8.96	4970	4290	3830	3450	3150	2920	2720	2550	2410	2280
D			*27.7*	*31.9*	*35.6*	*38.4*	*41.0*	*43.4*	*45.5*	*47.4*	*49.2*	*50.8*
U			*38.5*	*44.3*	*49.4*	*53.4*	*56.9*	*60.3*	*63.2*	*65.8*	*68.4*	*70.6*
125x75x2.5RHS	C450L0	7.53	4160	3510	3070	2750	2500	2300	2130	1990	1870	1760
D			*23.2*	*26.1*	*28.5*	*30.6*	*32.5*	*34.2*	*35.6*	*37.0*	*38.2*	*39.2*
U			*32.2*	*36.2*	*39.6*	*42.6*	*45.2*	*47.5*	*49.5*	*51.3*	*53.1*	*54.5*
125x75x2.0RHS	C450L0	6.07	3140	2610	2250	1990	1780	1620	1490	1380	1290	1210
D			*17.5*	*19.4*	*20.9*	*22.2*	*23.1*	*24.1*	*24.9*	*25.6*	*26.4*	*27.0*
U			*24.3*	*26.9*	*29.0*	*30.8*	*32.1*	*33.4*	*34.6*	*35.6*	*36.6*	*37.5*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-6.88 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.95 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 86 m/s
V_{hs} = 55 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.6
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4600	3970	3550	3240	3000	2800	2640	2500	2390	2280
D			*25.6*	*29.5*	*33.0*	*36.1*	*39.0*	*41.6*	*44.1*	*46.4*	*48.8*	*50.8*
U			*35.6*	*41.0*	*45.8*	*50.2*	*54.2*	*57.8*	*61.3*	*64.5*	*67.8*	*70.6*
100x50x4.0RHS	C450L0	8.49	4210	3640	3250	2970	2740	2570	2420	2290	2190	2090
D			*23.5*	*27.0*	*30.2*	*33.1*	*35.6*	*38.2*	*40.5*	*42.5*	*44.7*	*46.6*
U			*32.6*	*37.6*	*41.9*	*46.0*	*49.5*	*53.0*	*56.2*	*59.1*	*62.2*	*64.7*
100x50x3.5RHS	C450L0	7.53	3980	3440	3080	2810	2600	2430	2290	2170	2070	1980
D			*22.2*	*25.6*	*28.6*	*31.3*	*33.8*	*36.1*	*38.3*	*40.3*	*42.3*	*44.1*
U			*30.8*	*35.5*	*39.7*	*43.5*	*47.0*	*50.2*	*53.2*	*56.0*	*58.7*	*61.3*
100x50x3.0RHS	C450L0	6.6	3750	3250	2900	2650	2450	2290	2160	2050	1950	1870
D			*20.9*	*24.1*	*26.9*	*29.5*	*31.9*	*34.0*	*36.1*	*38.1*	*39.8*	*41.7*
U			*29.0*	*33.5*	*37.4*	*41.0*	*44.2*	*47.3*	*50.2*	*52.9*	*55.3*	*57.9*
100x50x2.5RHS	C450L0	5.56	3460	2990	2670	2440	2250	2080	1940	1830	1720	1640
D			*19.3*	*22.2*	*24.8*	*27.2*	*29.3*	*30.9*	*32.4*	*34.0*	*35.1*	*36.6*
U			*26.8*	*30.9*	*34.4*	*37.8*	*40.6*	*42.9*	*45.0*	*47.2*	*48.8*	*50.8*
100x50x2.0RHS	C450L0	4.50	3000	2530	2210	1970	1790	1640	1520	1420	1330	1260
D			*16.7*	*18.8*	*20.5*	*22.0*	*23.3*	*24.4*	*25.4*	*26.4*	*27.2*	*28.1*
U			*23.2*	*26.1*	*28.5*	*30.5*	*32.3*	*33.9*	*35.3*	*36.6*	*37.7*	*39.0*
100x50x1.6RHS	C450L0	3.64	2220	1840	1580	1400	1260	1140	1050	970	900	850
D			*12.4*	*13.7*	*14.7*	*15.6*	*16.4*	*16.9*	*17.6*	*18.0*	*18.4*	*18.9*
U			*17.2*	*19.0*	*20.4*	*21.7*	*22.8*	*23.5*	*24.4*	*25.0*	*25.5*	*26.3*
100x100x3.0SHS	C450L0	8.96	3810	3190	2760	2450	2210	2020	1860	1720	1610	1510
D			*21.2*	*23.7*	*25.6*	*27.3*	*28.7*	*30.0*	*31.1*	*31.9*	*32.9*	*33.7*
U			*29.5*	*32.9*	*35.6*	*37.9*	*39.9*	*41.7*	*43.2*	*44.4*	*45.7*	*46.8*
100x100x2.5SHS	C450L0	7.53	3440	2890	2510	2240	2020	1850	1710	1590	1490	1400
D			*19.2*	*21.5*	*23.3*	*25.0*	*26.3*	*27.5*	*28.6*	*29.5*	*30.4*	*31.2*
U			*26.6*	*29.8*	*32.4*	*34.7*	*36.5*	*38.2*	*39.7*	*41.0*	*42.3*	*43.3*
100x100x2.0SHS	C450L0	6.07	3030	2550	2230	1990	1810	1660	1540	1430	1340	1270
D			*16.9*	*18.9*	*20.7*	*22.2*	*23.5*	*24.7*	*25.7*	*26.6*	*27.4*	*28.3*
U			*23.5*	*26.3*	*28.8*	*30.8*	*32.7*	*34.3*	*35.8*	*36.9*	*38.0*	*39.3*
90x90x2.0SHS	C450L0	5.45	2840	2400	2100	1870	1700	1560	1450	1360	1270	1200
D			*15.8*	*17.8*	*19.5*	*20.8*	*22.1*	*23.2*	*24.2*	*25.3*	*25.9*	*26.7*
U			*22.0*	*24.8*	*27.1*	*28.9*	*30.7*	*32.2*	*33.7*	*35.1*	*36.0*	*37.2*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-6.88 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.95 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	86 m/s
V_{hs} =	55 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	5560	5230	4920	4630	4400	4200	4040	3900	3780	3620
D			*14.4*	*18.0*	*21.2*	*23.9*	*26.5*	*28.9*	*31.3*	*33.6*	*35.8*	*37.4*
U			*15.7*	*19.7*	*23.2*	*26.2*	*29.1*	*31.7*	*34.3*	*36.8*	*39.2*	*41.0*
150x50x5.0RHS	C450L0	14.2	5420	5070	4710	4430	4210	4030	3870	3690	3520	3370
D			*14.0*	*17.5*	*20.3*	*22.9*	*25.4*	*27.8*	*30.0*	*31.8*	*33.3*	*34.8*
U			*15.3*	*19.1*	*22.2*	*25.1*	*27.8*	*30.4*	*32.9*	*34.8*	*36.5*	*38.2*
150x50x4.0RHS	C450L0	11.6	5220	4790	4450	4180	3970	3760	3540	3360	3200	3070
D			*13.5*	*16.5*	*19.2*	*21.6*	*23.9*	*25.9*	*27.4*	*28.9*	*30.3*	*31.7*
U			*14.8*	*18.1*	*21.0*	*23.7*	*26.2*	*28.4*	*30.1*	*31.7*	*33.2*	*34.8*
150x50x3.0RHS	C450L0	8.96	4890	4440	4120	3850	3560	3330	3140	2980	2840	2720
D			*12.6*	*15.3*	*17.7*	*19.9*	*21.5*	*22.9*	*24.3*	*25.7*	*26.9*	*28.1*
U			*13.8*	*16.8*	*19.4*	*21.8*	*23.5*	*25.1*	*26.7*	*28.1*	*29.5*	*30.8*
150x50x2.5RHS	C450L0	7.53	4630	4210	3880	3540	3280	3060	2890	2740	2610	2500
D			*12.0*	*14.5*	*16.7*	*18.3*	*19.8*	*21.1*	*22.4*	*23.6*	*24.7*	*25.8*
U			*13.1*	*15.9*	*18.3*	*20.0*	*21.7*	*23.1*	*24.5*	*25.9*	*27.1*	*28.3*
150x50x2.0RHS	C450L0	6.07	4280	3700	3310	3020	2790	2610	2460	2330	2230	2130
D			*11.1*	*12.7*	*14.2*	*15.6*	*16.8*	*18.0*	*19.1*	*20.1*	*21.1*	*22.0*
U			*12.1*	*14.0*	*15.6*	*17.1*	*18.4*	*19.7*	*20.9*	*22.0*	*23.1*	*24.1*
125x75x6.0RHS	C450L0	16.7	5300	4960	4610	4340	4120	3940	3790	3660	3540	3440
D			*13.7*	*17.1*	*19.8*	*22.4*	*24.8*	*27.1*	*29.4*	*31.5*	*33.5*	*35.5*
U			*15.0*	*18.7*	*21.7*	*24.6*	*27.2*	*29.7*	*32.2*	*34.5*	*36.7*	*38.9*
125x75x5.0RHS	C450L0	14.2	5160	4750	4410	4150	3940	3770	3620	3500	3380	3240
D			13.3	16.4	19.0	21.4	23.7	26.0	28.0	30.1	32.0	33.5
U			14.6	17.9	20.8	23.5	26.0	28.5	30.7	33.0	35.1	36.7
125x75x4.0RHS	C450L0	11.6	4930	4480	4160	3910	3720	3550	3400	3230	3070	2940
D			12.7	15.4	17.9	20.2	22.4	24.5	26.3	27.8	29.1	30.4
U			14.0	16.9	19.6	22.1	24.6	26.8	28.9	30.5	31.9	33.3
125x75x3.0RHS	C450L0	8.96	4570	4150	3850	3620	3390	3170	2990	2830	2700	2580
D			*11.8*	*14.3*	*16.6*	*18.7*	*20.4*	*21.8*	*23.2*	*24.4*	*25.6*	*26.7*
U			*12.9*	*15.7*	*18.2*	*20.5*	*22.4*	*23.9*	*25.4*	*26.7*	*28.0*	*29.2*
125x75x2.5RHS	C450L0	7.53	4330	3880	3470	3160	2930	2740	2580	2450	2330	2230
D			*11.2*	*13.4*	*14.9*	*16.3*	*17.7*	*18.9*	*20.0*	*21.1*	*22.1*	*23.0*
U			*12.3*	*14.6*	*16.4*	*17.9*	*19.4*	*20.7*	*21.9*	*23.1*	*24.2*	*25.2*
125x75x2.0RHS	C450L0	6.07	3790	3280	2930	2670	2470	2310	2180	2070	1970	1890
D			*9.79*	*11.3*	*12.6*	*13.8*	*14.9*	*15.9*	*16.9*	*17.8*	*18.7*	*19.5*
U			*10.7*	*12.4*	*13.8*	*15.1*	*16.3*	*17.4*	*18.5*	*19.5*	*20.4*	*21.4*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-6.29 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	5.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 86 m/s
V_{hs} = 55 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.6
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	3910	3550	3300	3100	2950	2820	2710	2620	2500	2390
D			*10.1*	*12.2*	*14.2*	*16.0*	*17.8*	*19.4*	*21.0*	*22.6*	*23.7*	*24.7*
U			*11.1*	*13.4*	*15.6*	*17.5*	*19.5*	*21.3*	*23.0*	*24.7*	*25.9*	*27.1*
100x50x4.0RHS	C450L0	8.49	3710	3370	3130	2950	2800	2680	2530	2400	2290	2190
D			*9.58*	*11.6*	*13.5*	*15.2*	*16.9*	*18.5*	*19.6*	*20.7*	*21.7*	*22.6*
U			*10.5*	*12.7*	*14.8*	*16.7*	*18.5*	*20.2*	*21.5*	*22.6*	*23.8*	*24.8*
100x50x3.5RHS	C450L0	7.53	3590	3260	3030	2850	2710	2540	2390	2270	2170	2070
D			*9.27*	*11.2*	*13.0*	*14.7*	*16.3*	*17.5*	*18.5*	*19.5*	*20.6*	*21.4*
U			*10.2*	*12.3*	*14.3*	*16.1*	*17.9*	*19.2*	*20.3*	*21.4*	*22.5*	*23.4*
100x50x3.0RHS	C450L0	6.6	3470	3150	2930	2750	2560	2400	2260	2140	2040	1960
D			*8.96*	*10.8*	*12.6*	*14.2*	*15.4*	*16.5*	*17.5*	*18.4*	*19.3*	*20.2*
U			*9.82*	*11.9*	*13.8*	*15.6*	*16.9*	*18.1*	*19.2*	*20.2*	*21.2*	*22.2*
100x50x2.5RHS	C450L0	5.56	3290	2990	2780	2550	2360	2210	2080	1980	1880	1800
D			*8.50*	*10.3*	*12.0*	*13.2*	*14.2*	*15.2*	*16.1*	*17.0*	*17.8*	*18.6*
U			*9.31*	*11.3*	*13.1*	*14.4*	*15.6*	*16.7*	*17.7*	*18.7*	*19.5*	*20.4*
100x50x2.0RHS	C450L0	4.50	3090	2800	2510	2290	2120	1980	1870	1770	1690	1620
D			*7.98*	*9.64*	*10.8*	*11.8*	*12.8*	*13.6*	*14.5*	*15.2*	*16.0*	*16.7*
U			*8.75*	*10.6*	*11.8*	*13.0*	*14.0*	*14.9*	*15.9*	*16.7*	*17.5*	*18.3*
100x50x1.6RHS	C450L0	3.64	2680	2320	2070	1890	1750	1640	1540	1460	1400	1340
D			*6.92*	*7.99*	*8.91*	*9.76*	*10.5*	*11.3*	*11.9*	*12.6*	*13.3*	*13.8*
U			*7.59*	*8.76*	*9.77*	*10.7*	*11.6*	*12.4*	*13.1*	*13.8*	*14.5*	*15.2*
100x100x3.0SHS	C450L0	8.96	4110	3730	3450	3150	2910	2720	2570	2430	2320	2220
D			*10.6*	*12.8*	*14.9*	*16.3*	*17.5*	*18.7*	*19.9*	*20.9*	*22.0*	*22.9*
U			*11.6*	*14.1*	*16.3*	*17.8*	*19.2*	*20.5*	*21.8*	*22.9*	*24.1*	*25.1*
100x100x2.5SHS	C450L0	7.53	3890	3360	3010	2740	2540	2370	2240	2120	2020	1940
D			*10.0*	*11.6*	*13.0*	*14.2*	*15.3*	*16.3*	*17.4*	*18.3*	*19.1*	*20.0*
U			*11.0*	*12.7*	*14.2*	*15.5*	*16.8*	*17.9*	*19.0*	*20.0*	*21.0*	*22.0*
100x100x2.0SHS	C450L0	6.07	3300	2850	2550	2330	2150	2010	1900	1800	1720	1640
D			*8.52*	*9.81*	*11.0*	*12.0*	*13.0*	*13.8*	*14.7*	*15.5*	*16.3*	*16.9*
U			*9.34*	*10.8*	*12.0*	*13.2*	*14.2*	*15.2*	*16.1*	*17.0*	*17.9*	*18.6*
90x90x2.0SHS	C450L0	5.45	3040	2630	2350	2140	1980	1860	1750	1660	1580	1510
D			*7.85*	*9.06*	*10.1*	*11.1*	*11.9*	*12.8*	*13.6*	*14.3*	*15.0*	*15.6*
U			*8.60*	*9.93*	*11.1*	*12.1*	*13.1*	*14.0*	*14.9*	*15.7*	*16.4*	*17.1*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-6.29 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	5.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	86 m/s
V_{hs} =	55 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN

Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	6930	6320	5640	5140	4760	4440	4190	3970	3790	3620
D			*44.7*	*54.4*	*60.7*	*66.4*	*71.7*	*76.4*	*81.2*	*85.4*	*89.7*	*93.5*
U			*49.0*	*59.6*	*66.5*	*72.7*	*78.6*	*83.8*	*89.0*	*93.6*	*98.3*	*102.5*
150x50x5.0RHS	C450L0	14.2	6750	5870	5240	4780	4420	4130	3890	3690	3520	3370
D			*43.6*	*50.5*	*56.4*	*61.7*	*66.6*	*71.1*	*75.4*	*79.4*	*83.3*	*87.0*
U			*47.8*	*55.4*	*61.8*	*67.7*	*73.0*	*77.9*	*82.6*	*87.0*	*91.3*	*95.4*
150x50x4.0RHS	C450L0	11.6	5830	5010	4440	4020	3690	3430	3210	3020	2860	2720
D			*37.6*	*43.1*	*47.8*	*51.9*	*55.6*	*59.1*	*62.2*	*65.0*	*67.7*	*70.3*
U			*41.3*	*47.3*	*52.4*	*56.9*	*60.9*	*64.7*	*68.1*	*71.2*	*74.2*	*77.0*
150x50x3.0RHS	C450L0	8.96	4730	4000	3500	3140	2850	2620	2430	2270	2140	2020
D			*30.5*	*34.4*	*37.7*	*40.5*	*42.9*	*45.1*	*47.1*	*48.9*	*50.7*	*52.2*
U			*33.5*	*37.7*	*41.3*	*44.4*	*47.1*	*49.4*	*51.6*	*53.5*	*55.5*	*57.2*
150x50x2.5RHS	C450L0	7.53	3940	3280	2840	2510	2260	2060	1890	1760	1640	1540
D			*25.4*	*28.2*	*30.6*	*32.4*	*34.0*	*35.5*	*36.6*	*37.9*	*38.8*	*39.8*
U			*27.9*	*30.9*	*33.5*	*35.5*	*37.3*	*38.9*	*40.1*	*41.5*	*42.6*	*43.6*
150x50x2.0RHS	C450L0	6.07	2820	2300	1950	1690	1500	1350	1230	1130	1040	970
D			*18.2*	*19.8*	*21.0*	*21.8*	*22.6*	*23.2*	*23.8*	*24.3*	*24.6*	*25.1*
U			*20.0*	*21.7*	*23.0*	*23.9*	*24.8*	*25.5*	*26.1*	*26.7*	*27.0*	*27.5*
125x75x6.0RHS	C450L0	16.7	6600	5790	5150	4680	4310	4010	3760	3550	3370	3210
D			*42.6*	*49.8*	*55.4*	*60.4*	*64.9*	*69.0*	*72.8*	*76.4*	*79.8*	*82.9*
U			*46.7*	*54.6*	*60.7*	*66.2*	*71.2*	*75.7*	*79.8*	*83.7*	*87.4*	*90.9*
125x75x5.0RHS	C450L0	14.2	6220	5350	4750	4310	3970	3690	3460	3260	3090	2940
D			40.2	46.1	51.1	55.7	59.8	63.5	67.0	70.2	73.2	75.9
U			44.0	50.5	56.0	61.0	65.6	69.6	73.5	76.9	80.2	83.2
125x75x4.0RHS	C450L0	11.6	5580	4780	4240	3830	3520	3270	3050	2880	2720	2590
D			36.0	41.2	45.6	49.5	53.0	56.3	59.1	62.0	64.4	66.9
U			39.5	45.1	50.0	54.2	58.1	61.7	64.7	67.9	70.6	73.3
125x75x3.0RHS	C450L0	8.96	4700	4000	3520	3170	2890	2670	2490	2330	2200	2080
D			*30.3*	*34.4*	*37.9*	*40.9*	*43.5*	*46.0*	*48.2*	*50.1*	*52.1*	*53.7*
U			*33.3*	*37.7*	*41.5*	*44.9*	*47.7*	*50.4*	*52.9*	*55.0*	*57.1*	*58.9*
125x75x2.5RHS	C450L0	7.53	3820	3220	2810	2510	2280	2090	1940	1810	1690	1600
D			*24.7*	*27.7*	*30.2*	*32.4*	*34.4*	*36.0*	*37.6*	*39.0*	*40.0*	*41.3*
U			*27.0*	*30.4*	*33.1*	*35.5*	*37.6*	*39.4*	*41.2*	*42.7*	*43.9*	*45.3*
125x75x2.0RHS	C450L0	6.07	2860	2370	2030	1790	1610	1460	1340	1240	1150	1080
D			*18.5*	*20.4*	*21.8*	*23.1*	*24.3*	*25.1*	*26.0*	*26.7*	*27.2*	*27.9*
U			*20.2*	*22.4*	*23.9*	*25.3*	*26.6*	*27.6*	*28.4*	*29.2*	*29.8*	*30.6*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-6.29 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	5.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 86 m/s
V_{hs} = 55 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.6
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4810	4160	3710	3390	3130	2930	2760	2620	2500	2390
D			*31.1*	*35.8*	*39.9*	*43.8*	*47.2*	*50.5*	*53.5*	*56.4*	*59.2*	*61.7*
U			*34.0*	*39.3*	*43.8*	*48.0*	*51.7*	*55.3*	*58.6*	*61.8*	*64.9*	*67.7*
100x50x4.0RHS	C450L0	8.49	4400	3810	3400	3100	2870	2680	2530	2400	2290	2190
D			*28.4*	*32.8*	*36.6*	*40.0*	*43.2*	*46.1*	*49.0*	*51.7*	*54.2*	*56.6*
U			*31.1*	*35.9*	*40.1*	*43.9*	*47.4*	*50.6*	*53.7*	*56.6*	*59.4*	*62.0*
100x50x3.5RHS	C450L0	7.53	4160	3600	3220	2940	2720	2540	2390	2270	2170	2070
D			*26.9*	*31.0*	*34.7*	*38.0*	*41.0*	*43.7*	*46.3*	*48.9*	*51.4*	*53.5*
U			*29.4*	*34.0*	*38.0*	*41.6*	*44.9*	*47.9*	*50.7*	*53.5*	*56.3*	*58.6*
100x50x3.0RHS	C450L0	6.6	3770	3230	2870	2590	2380	2210	2070	1950	1850	1760
D			*24.3*	*27.8*	*30.9*	*33.4*	*35.9*	*38.1*	*40.1*	*42.0*	*43.8*	*45.5*
U			*26.7*	*30.5*	*33.8*	*36.7*	*39.3*	*41.7*	*43.9*	*46.0*	*48.0*	*49.8*
100x50x2.5RHS	C450L0	5.56	3340	2840	2510	2260	2060	1910	1780	1670	1580	1500
D			*21.6*	*24.5*	*27.0*	*29.2*	*31.0*	*32.9*	*34.5*	*35.9*	*37.4*	*38.7*
U			*23.6*	*26.8*	*29.6*	*32.0*	*34.0*	*36.0*	*37.8*	*39.4*	*41.0*	*42.5*
100x50x2.0RHS	C450L0	4.50	2750	2310	2020	1800	1630	1490	1380	1290	1210	1140
D			*17.8*	*19.9*	*21.7*	*23.2*	*24.6*	*25.7*	*26.7*	*27.8*	*28.6*	*29.4*
U			*19.5*	*21.8*	*23.8*	*25.5*	*26.9*	*28.1*	*29.3*	*30.4*	*31.4*	*32.3*
100x50x1.6RHS	C450L0	3.64	2020	1670	1430	1260	1130	1020	940	870	810	760
D			*13.0*	*14.4*	*15.4*	*16.3*	*17.0*	*17.6*	*18.2*	*18.7*	*19.2*	*19.6*
U			*14.3*	*15.8*	*16.9*	*17.8*	*18.7*	*19.2*	*20.0*	*20.5*	*21.0*	*21.5*
100x100x3.0SHS	C450L0	8.96	3480	2900	2510	2220	2000	1820	1670	1550	1450	1360
D			*22.5*	*25.0*	*27.0*	*28.7*	*30.1*	*31.3*	*32.3*	*33.4*	*34.3*	*35.1*
U			*24.6*	*27.4*	*29.6*	*31.4*	*33.0*	*34.3*	*35.5*	*36.6*	*37.6*	*38.5*
100x100x2.5SHS	C450L0	7.53	3150	2640	2290	2030	1830	1670	1540	1440	1340	1260
D			*20.3*	*22.7*	*24.6*	*26.2*	*27.6*	*28.8*	*29.8*	*31.0*	*31.7*	*32.5*
U			*22.3*	*24.9*	*27.0*	*28.7*	*30.2*	*31.5*	*32.7*	*34.0*	*34.8*	*35.7*
100x100x2.0SHS	C450L0	6.07	2780	2340	2030	1810	1640	1510	1390	1300	1220	1150
D			*18.0*	*20.1*	*21.8*	*23.4*	*24.7*	*26.0*	*26.9*	*28.0*	*28.9*	*29.7*
U			*19.7*	*22.1*	*23.9*	*25.6*	*27.1*	*28.5*	*29.5*	*30.7*	*31.7*	*32.6*
90x90x2.0SHS	C450L0	5.45	2600	2190	1910	1710	1550	1420	1320	1230	1150	1090
D			*16.8*	*18.9*	*20.6*	*22.1*	*23.4*	*24.5*	*25.6*	*26.5*	*27.2*	*28.2*
U			*18.4*	*20.7*	*22.5*	*24.2*	*25.6*	*26.8*	*28.0*	*29.0*	*29.8*	*30.9*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load	Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	= 1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓	
6 =	Dead & Wind Load (0.9G + W_u)↑	= -6.29 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	= 5.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)	

Load	
V_{hu} =	86 m/s
V_{hs} =	55 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.6
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	6610	6000	5570	5240	4980	4760	4580	4420	4230	4050
D			*14.7*	*17.8*	*20.7*	*23.4*	*25.9*	*28.3*	*30.6*	*32.8*	*34.6*	*36.1*
U			*13.9*	*16.8*	*19.5*	*22.0*	*24.4*	*26.6*	*28.8*	*30.9*	*32.5*	*34.0*
150x50x5.0RHS	C450L0	14.2	6330	5750	5340	5020	4770	4560	4340	4120	3930	3770
D			*14.1*	*17.1*	*19.8*	*22.4*	*24.8*	*27.1*	*29.0*	*30.6*	*32.1*	*33.6*
U			*13.3*	*16.1*	*18.7*	*21.1*	*23.3*	*25.5*	*27.3*	*28.8*	*30.2*	*31.6*
150x50x4.0RHS	C450L0	11.6	5970	5430	5040	4740	4490	4200	3960	3760	3590	3440
D			*13.3*	*16.1*	*18.7*	*21.1*	*23.3*	*25.0*	*26.5*	*27.9*	*29.3*	*30.7*
U			*12.5*	*15.2*	*17.6*	*19.9*	*22.0*	*23.5*	*24.9*	*26.3*	*27.6*	*28.9*
150x50x3.0RHS	C450L0	8.96	5540	5030	4670	4300	3980	3730	3520	3340	3180	3050
D			*12.3*	*14.9*	*17.3*	*19.2*	*20.7*	*22.2*	*23.5*	*24.8*	*26.0*	*27.2*
U			*11.6*	*14.1*	*16.3*	*18.0*	*19.5*	*20.9*	*22.2*	*23.4*	*24.5*	*25.6*
150x50x2.5RHS	C450L0	7.53	5250	4770	4330	3960	3670	3430	3240	3070	2930	2810
D			*11.7*	*14.2*	*16.1*	*17.7*	*19.1*	*20.4*	*21.7*	*22.8*	*23.9*	*25.1*
U			*11.0*	*13.3*	*15.1*	*16.6*	*18.0*	*19.2*	*20.4*	*21.5*	*22.5*	*23.6*
150x50x2.0RHS	C450L0	6.07	4760	4130	3700	3380	3130	2930	2760	2620	2500	2390
D			*10.6*	*12.3*	*13.7*	*15.1*	*16.3*	*17.4*	*18.5*	*19.5*	*20.4*	*21.3*
U			*9.98*	*11.6*	*12.9*	*14.2*	*15.3*	*16.4*	*17.4*	*18.3*	*19.2*	*20.1*
125x75x6.0RHS	C450L0	16.7	6190	5620	5220	4910	4670	4460	4290	4140	4010	3890
D			*13.8*	*16.7*	*19.4*	*21.9*	*24.3*	*26.5*	*28.7*	*30.8*	*32.8*	*34.7*
U			*13.0*	*15.7*	*18.2*	*20.6*	*22.9*	*24.9*	*27.0*	*28.9*	*30.8*	*32.6*
125x75x5.0RHS	C450L0	14.2	5920	5380	4990	4700	4460	4270	4100	3960	3780	3620
D			13.2	16.0	18.5	21.0	23.2	25.4	27.4	29.4	30.9	32.3
U			12.4	15.0	17.4	19.7	21.8	23.9	25.8	27.7	29.1	30.4
125x75x4.0RHS	C450L0	11.6	5580	5070	4710	4430	4210	4030	3800	3610	3440	3300
D			12.4	15.1	17.5	19.7	21.9	24.0	25.4	26.8	28.1	29.4
U			11.7	14.2	16.5	18.6	20.6	22.5	23.9	25.2	26.5	27.7
125x75x3.0RHS	C450L0	8.96	5170	4700	4360	4090	3790	3550	3340	3170	3030	2900
D			*11.5*	*14.0*	*16.2*	*18.2*	*19.7*	*21.1*	*22.3*	*23.6*	*24.8*	*25.9*
U			*10.8*	*13.1*	*15.2*	*17.2*	*18.6*	*19.9*	*21.0*	*22.2*	*23.3*	*24.3*
125x75x2.5RHS	C450L0	7.53	4900	4320	3870	3540	3280	3070	2890	2740	2620	2510
D			*10.9*	*12.8*	*14.4*	*15.8*	*17.1*	*18.2*	*19.3*	*20.4*	*21.4*	*22.4*
U			*10.3*	*12.1*	*13.5*	*14.9*	*16.1*	*17.2*	*18.2*	*19.2*	*20.2*	*21.1*
125x75x2.0RHS	C450L0	6.07	4210	3660	3270	2990	2770	2590	2450	2320	2210	2120
D			*9.38*	*10.9*	*12.1*	*13.3*	*14.4*	*15.4*	*16.4*	*17.2*	*18.1*	*18.9*
U			*8.83*	*10.2*	*11.4*	*12.5*	*13.6*	*14.5*	*15.4*	*16.2*	*17.0*	*17.8*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-4.66 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.95 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 86 m/s
V_{hs} = 55 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4430	4030	3740	3520	3340	3200	3070	2930	2800	2680
D			*9.87*	*12.0*	*13.9*	*15.7*	*17.4*	*19.0*	*20.5*	*21.8*	*22.9*	*23.9*
U			*9.29*	*11.3*	*13.1*	*14.8*	*16.3*	*17.9*	*19.3*	*20.5*	*21.5*	*22.5*
100x50x4.0RHS	C450L0	8.49	4210	3820	3550	3340	3170	3010	2830	2690	2570	2460
D			*9.38*	*11.4*	*13.2*	*14.9*	*16.5*	*17.9*	*18.9*	*20.0*	*21.0*	*21.9*
U			*8.83*	*10.7*	*12.4*	*14.0*	*15.5*	*16.8*	*17.8*	*18.8*	*19.8*	*20.6*
100x50x3.5RHS	C450L0	7.53	4070	3700	3430	3230	3040	2850	2680	2550	2430	2330
D			*9.07*	*11.0*	*12.7*	*14.4*	*15.8*	*16.9*	*17.9*	*18.9*	*19.9*	*20.8*
U			*8.54*	*10.3*	*12.0*	*13.6*	*14.9*	*15.9*	*16.9*	*17.8*	*18.7*	*19.5*
100x50x3.0RHS	C450L0	6.6	3930	3570	3310	3100	2870	2690	2530	2400	2290	2200
D			*8.76*	*10.6*	*12.3*	*13.8*	*14.9*	*16.0*	*16.9*	*17.8*	*18.7*	*19.6*
U			*8.24*	*9.98*	*11.6*	*13.0*	*14.0*	*15.0*	*15.9*	*16.8*	*17.6*	*18.5*
100x50x2.5RHS	C450L0	5.56	3730	3390	3130	2860	2650	2480	2340	2220	2120	2030
D			*8.31*	*10.1*	*11.6*	*12.7*	*13.8*	*14.7*	*15.6*	*16.5*	*17.3*	*18.1*
U			*7.82*	*9.48*	*10.9*	*12.0*	*13.0*	*13.9*	*14.7*	*15.5*	*16.3*	*17.0*
100x50x2.0RHS	C450L0	4.50	3500	3140	2810	2560	2380	2220	2100	1990	1900	1820
D			*7.80*	*9.33*	*10.4*	*11.4*	*12.4*	*13.2*	*14.0*	*14.8*	*15.5*	*16.2*
U			*7.34*	*8.78*	*9.82*	*10.7*	*11.6*	*12.4*	*13.2*	*13.9*	*14.6*	*15.3*
100x50x1.6RHS	C450L0	3.64	3000	2600	2330	2120	1970	1840	1740	1650	1570	1500
D			*6.69*	*7.73*	*8.65*	*9.45*	*10.2*	*10.9*	*11.6*	*12.3*	*12.8*	*13.4*
U			*6.29*	*7.27*	*8.15*	*8.89*	*9.64*	*10.3*	*10.9*	*11.5*	*12.1*	*12.6*
100x100x3.0SHS	C450L0	8.96	4660	4230	3840	3510	3250	3050	2870	2730	2600	2490
D			*10.4*	*12.6*	*14.3*	*15.6*	*16.9*	*18.1*	*19.2*	*20.3*	*21.2*	*22.2*
U			*9.77*	*11.8*	*13.4*	*14.7*	*15.9*	*17.1*	*18.1*	*19.1*	*20.0*	*20.9*
100x100x2.5SHS	C450L0	7.53	4310	3750	3360	3070	2840	2660	2510	2380	2270	2170
D			*9.61*	*11.1*	*12.5*	*13.7*	*14.8*	*15.8*	*16.8*	*17.7*	*18.6*	*19.3*
U			*9.04*	*10.5*	*11.7*	*12.9*	*13.9*	*14.9*	*15.8*	*16.6*	*17.5*	*18.2*
100x100x2.0SHS	C450L0	6.07	3670	3180	2850	2610	2410	2260	2130	2020	1930	1850
D			*8.18*	*9.45*	*10.6*	*11.6*	*12.5*	*13.4*	*14.2*	*15.0*	*15.8*	*16.5*
U			*7.70*	*8.89*	*9.96*	*10.9*	*11.8*	*12.6*	*13.4*	*14.1*	*14.8*	*15.5*
90x90x2.0SHS	C450L0	5.45	3390	2940	2630	2400	2230	2080	1960	1860	1780	1700
D			*7.56*	*8.74*	*9.77*	*10.7*	*11.6*	*12.4*	*13.1*	*13.8*	*14.5*	*15.2*
U			*7.11*	*8.22*	*9.19*	*10.1*	*10.9*	*11.6*	*12.3*	*13.0*	*13.7*	*14.3*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-4.66 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.95 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	86 m/s
V_{hs} =	55 m/s
G =	0.244 kPa
$C_{p,n}$ ↑ =	-1.1
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	7970	6940	6220	5690	5280	4940	4670	4430	4230	4050
D			*44.4*	*51.6*	*57.8*	*63.4*	*68.6*	*73.4*	*78.1*	*82.3*	*86.4*	*90.3*
U			*41.8*	*48.5*	*54.4*	*59.7*	*64.6*	*69.1*	*73.5*	*77.4*	*81.3*	*85.0*
150x50x5.0RHS	C450L0	14.2	7430	6470	5800	5300	4920	4600	4340	4120	3930	3770
D			*41.4*	*48.1*	*53.9*	*59.1*	*64.0*	*68.3*	*72.5*	*76.5*	*80.3*	*84.0*
U			*39.0*	*45.2*	*50.7*	*55.6*	*60.2*	*64.3*	*68.3*	*72.0*	*75.6*	*79.1*
150x50x4.0RHS	C450L0	11.6	6300	5420	4810	4360	4000	3720	3480	3280	3110	2960
D			*35.1*	*40.3*	*44.7*	*48.6*	*52.0*	*55.3*	*58.2*	*60.9*	*63.5*	*66.0*
U			*33.0*	*37.9*	*42.0*	*45.7*	*48.9*	*52.0*	*54.7*	*57.3*	*59.8*	*62.1*
150x50x3.0RHS	C450L0	8.96	5150	4360	3830	3430	3120	2880	2670	2500	2350	2220
D			*28.7*	*32.4*	*35.6*	*38.2*	*40.6*	*42.8*	*44.6*	*46.4*	*48.0*	*49.5*
U			*27.0*	*30.5*	*33.5*	*36.0*	*38.2*	*40.3*	*42.0*	*43.7*	*45.2*	*46.6*
150x50x2.5RHS	C450L0	7.53	4310	3610	3120	2770	2500	2280	2100	1950	1820	1710
D			*24.0*	*26.8*	*29.0*	*30.9*	*32.5*	*33.9*	*35.1*	*36.2*	*37.2*	*38.1*
U			*22.6*	*25.2*	*27.3*	*29.1*	*30.6*	*31.9*	*33.0*	*34.1*	*35.0*	*35.9*
150x50x2.0RHS	C450L0	6.07	3130	2550	2170	1900	1690	1520	1380	1270	1180	1100
D			*17.4*	*18.9*	*20.2*	*21.2*	*22.0*	*22.6*	*23.1*	*23.6*	*24.1*	*24.5*
U			*16.4*	*17.8*	*19.0*	*19.9*	*20.7*	*21.3*	*21.7*	*22.2*	*22.7*	*23.1*
125x75x6.0RHS	C450L0	16.7	7240	6250	5570	5060	4660	4340	4070	3850	3650	3480
D			*40.3*	*46.4*	*51.7*	*56.4*	*60.6*	*64.5*	*68.0*	*71.5*	*74.6*	*77.6*
U			*38.0*	*43.7*	*48.7*	*53.1*	*57.0*	*60.7*	*64.0*	*67.3*	*70.2*	*73.0*
125x75x5.0RHS	C450L0	14.2	6710	5780	5140	4670	4300	4000	3750	3540	3360	3200
D			37.4	42.9	47.7	52.0	55.9	59.4	62.7	65.7	68.6	71.3
U			35.2	40.4	44.9	49.0	52.6	55.9	59.0	61.9	64.6	67.1
125x75x4.0RHS	C450L0	11.6	6030	5180	4590	4160	3820	3550	3320	3130	2960	2820
D			33.6	38.5	42.6	46.4	49.7	52.7	55.5	58.1	60.5	62.9
U			31.6	36.2	40.1	43.6	46.7	49.6	52.2	54.7	56.9	59.2
125x75x3.0RHS	C450L0	8.96	5090	4340	3830	3450	3150	2920	2720	2550	2410	2280
D			*28.4*	*32.2*	*35.6*	*38.4*	*41.0*	*43.4*	*45.5*	*47.4*	*49.2*	*50.8*
U			*26.7*	*30.3*	*33.5*	*36.2*	*38.5*	*40.8*	*42.8*	*44.6*	*46.3*	*47.8*
125x75x2.5RHS	C450L0	7.53	4160	3510	3070	2750	2500	2300	2130	1990	1870	1760
D			*23.2*	*26.1*	*28.5*	*30.6*	*32.5*	*34.2*	*35.6*	*37.0*	*38.2*	*39.2*
U			*21.8*	*24.5*	*26.8*	*28.8*	*30.6*	*32.2*	*33.5*	*34.8*	*36.0*	*36.9*
125x75x2.0RHS	C450L0	6.07	3140	2610	2250	1990	1780	1620	1490	1380	1290	1210
D			*17.5*	*19.4*	*20.9*	*22.2*	*23.1*	*24.1*	*24.9*	*25.6*	*26.4*	*27.0*
U			*16.5*	*18.2*	*19.7*	*20.9*	*21.8*	*22.7*	*23.4*	*24.1*	*24.8*	*25.4*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-4.66 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.95 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 86 m/s
V_{hs} = 55 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span 900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	5300	4610	4130	3780	3500	3280	3090	2930	2800	2680
D			*29.5*	*34.2*	*38.4*	*42.1*	*45.5*	*48.7*	*51.7*	*54.4*	*57.2*	*59.7*
U			*27.8*	*32.2*	*36.1*	*39.6*	*42.8*	*45.9*	*48.6*	*51.2*	*53.8*	*56.2*
100x50x4.0RHS	C450L0	8.49	4870	4230	3790	3470	3210	3010	2830	2690	2570	2460
D			*27.1*	*31.4*	*35.2*	*38.7*	*41.7*	*44.7*	*47.3*	*50.0*	*52.5*	*54.8*
U			*25.5*	*29.6*	*33.1*	*36.4*	*39.3*	*42.1*	*44.5*	*47.0*	*49.4*	*51.6*
100x50x3.5RHS	C450L0	7.53	4620	4010	3590	3280	3040	2850	2680	2550	2430	2330
D			*25.7*	*29.8*	*33.3*	*36.6*	*39.5*	*42.3*	*44.8*	*47.4*	*49.6*	*51.9*
U			*24.2*	*28.0*	*31.4*	*34.4*	*37.2*	*39.9*	*42.2*	*44.6*	*46.7*	*48.9*
100x50x3.0RHS	C450L0	6.6	4070	3500	3100	2810	2580	2400	2250	2120	2010	1910
D			*22.7*	*26.0*	*28.8*	*31.3*	*33.5*	*35.7*	*37.6*	*39.4*	*41.1*	*42.6*
U			*21.3*	*24.5*	*27.1*	*29.5*	*31.6*	*33.6*	*35.4*	*37.1*	*38.6*	*40.1*
100x50x2.5RHS	C450L0	5.56	3620	3090	2730	2460	2250	2080	1940	1830	1720	1640
D			*20.2*	*23.0*	*25.4*	*27.4*	*29.3*	*30.9*	*32.4*	*34.0*	*35.1*	*36.6*
U			*19.0*	*21.6*	*23.9*	*25.8*	*27.5*	*29.1*	*30.5*	*32.0*	*33.1*	*34.4*
100x50x2.0RHS	C450L0	4.50	3000	2530	2210	1970	1790	1640	1520	1420	1330	1260
D			*16.7*	*18.8*	*20.5*	*22.0*	*23.3*	*24.4*	*25.4*	*26.4*	*27.2*	*28.1*
U			*15.7*	*17.7*	*19.3*	*20.7*	*21.9*	*22.9*	*23.9*	*24.8*	*25.6*	*26.4*
100x50x1.6RHS	C450L0	3.64	2220	1840	1580	1400	1260	1140	1050	970	900	850
D			*12.4*	*13.7*	*14.7*	*15.6*	*16.4*	*16.9*	*17.6*	*18.0*	*18.4*	*18.9*
U			*11.6*	*12.9*	*13.8*	*14.7*	*15.4*	*15.9*	*16.5*	*17.0*	*17.3*	*17.8*
100x100x3.0SHS	C450L0	8.96	3810	3190	2760	2450	2210	2020	1860	1720	1610	1510
D			*21.2*	*23.7*	*25.6*	*27.3*	*28.7*	*30.0*	*31.1*	*31.9*	*32.9*	*33.7*
U			*20.0*	*22.3*	*24.1*	*25.7*	*27.0*	*28.2*	*29.3*	*30.1*	*31.0*	*31.7*
100x100x2.5SHS	C450L0	7.53	3440	2890	2510	2240	2020	1850	1710	1590	1490	1400
D			*19.2*	*21.5*	*23.3*	*25.0*	*26.3*	*27.5*	*28.6*	*29.5*	*30.4*	*31.2*
U			*18.0*	*20.2*	*21.9*	*23.5*	*24.7*	*25.9*	*26.9*	*27.8*	*28.7*	*29.4*
100x100x2.0SHS	C450L0	6.07	3030	2550	2230	1990	1810	1660	1540	1430	1340	1270
D			*16.9*	*18.9*	*20.7*	*22.2*	*23.5*	*24.7*	*25.7*	*26.6*	*27.4*	*28.3*
U			*15.9*	*17.8*	*19.5*	*20.9*	*22.1*	*23.2*	*24.2*	*25.0*	*25.8*	*26.6*
90x90x2.0SHS	C450L0	5.45	2840	2400	2100	1870	1700	1560	1450	1360	1270	1200
D			*15.8*	*17.8*	*19.5*	*20.8*	*22.1*	*23.2*	*24.2*	*25.3*	*25.9*	*26.7*
U			*14.9*	*16.8*	*18.4*	*19.6*	*20.8*	*21.8*	*22.8*	*23.8*	*24.4*	*25.2*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	0.668 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-4.66 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	4.95 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 86 m/s
V_{hs} = 55 m/s
G = 0.244 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	5560	5230	4980	4780	4620	4480	4340	4120	3930	3760
D			*14.4*	*18.0*	*21.4*	*24.7*	*27.8*	*30.9*	*33.6*	*35.5*	*37.2*	*38.8*
U			*10.2*	*12.8*	*15.2*	*17.5*	*19.8*	*21.9*	*23.9*	*25.2*	*26.4*	*27.6*
150x50x5.0RHS	C450L0	14.2	5420	5090	4840	4640	4480	4280	4040	3830	3660	3500
D			*14.0*	*17.5*	*20.8*	*24.0*	*27.0*	*29.5*	*31.3*	*33.0*	*34.7*	*36.2*
U			*9.93*	*12.4*	*14.8*	*17.0*	*19.2*	*20.9*	*22.2*	*23.4*	*24.6*	*25.6*
150x50x4.0RHS	C450L0	11.6	5220	4900	4660	4460	4170	3900	3680	3500	3330	3190
D			*13.5*	*16.9*	*20.1*	*23.0*	*25.1*	*26.9*	*28.5*	*30.1*	*31.5*	*33.0*
U			*9.56*	*12.0*	*14.2*	*16.3*	*17.8*	*19.1*	*20.2*	*21.4*	*22.4*	*23.4*
150x50x3.0RHS	C450L0	8.96	4980	4660	4370	4000	3700	3460	3270	3100	2960	2830
D			*12.9*	*16.0*	*18.8*	*20.7*	*22.3*	*23.8*	*25.3*	*26.7*	*28.0*	*29.2*
U			*9.12*	*11.4*	*13.3*	*14.7*	*15.8*	*16.9*	*18.0*	*18.9*	*19.9*	*20.7*
150x50x2.5RHS	C450L0	7.53	4800	4490	4030	3680	3410	3190	3010	2850	2720	2610
D			*12.4*	*15.5*	*17.3*	*19.0*	*20.6*	*22.0*	*23.3*	*24.5*	*25.8*	*27.0*
U			*8.79*	*11.0*	*12.3*	*13.5*	*14.6*	*15.6*	*16.5*	*17.4*	*18.3*	*19.1*
150x50x2.0RHS	C450L0	6.07	4420	3840	3440	3140	2910	2720	2570	2430	2320	2220
D			*11.4*	*13.2*	*14.8*	*16.2*	*17.5*	*18.7*	*19.9*	*20.9*	*22.0*	*22.9*
U			*8.10*	*9.38*	*10.5*	*11.5*	*12.4*	*13.3*	*14.1*	*14.8*	*15.6*	*16.3*
125x75x6.0RHS	C450L0	16.7	5300	4980	4740	4550	4400	4260	4150	3960	3780	3620
D			*13.7*	*17.1*	*20.4*	*23.5*	*26.5*	*29.3*	*32.2*	*34.1*	*35.8*	*37.4*
U			*9.71*	*12.2*	*14.5*	*16.7*	*18.8*	*20.8*	*22.8*	*24.2*	*25.4*	*26.5*
125x75x5.0RHS	C450L0	14.2	5160	4840	4610	4420	4260	4110	3880	3680	3510	3360
D			13.3	16.7	19.8	22.8	25.7	28.3	30.1	31.7	33.2	34.7
U			9.45	11.8	14.1	16.2	18.2	20.1	21.3	22.5	23.6	24.6
125x75x4.0RHS	C450L0	11.6	4970	4660	4430	4240	4000	3750	3530	3350	3200	3060
D			12.8	16.0	19.1	21.9	24.1	25.8	27.4	28.8	30.3	31.6
U			9.11	11.4	13.5	15.5	17.1	18.3	19.4	20.5	21.5	22.4
125x75x3.0RHS	C450L0	8.96	4730	4420	4160	3800	3520	3300	3110	2950	2810	2690
D			*12.2*	*15.2*	*17.9*	*19.6*	*21.2*	*22.7*	*24.1*	*25.4*	*26.6*	*27.8*
U			*8.67*	*10.8*	*12.7*	*13.9*	*15.0*	*16.1*	*17.1*	*18.0*	*18.9*	*19.7*
125x75x2.5RHS	C450L0	7.53	4560	4020	3600	3290	3040	2850	2690	2550	2430	2330
D			*11.8*	*13.8*	*15.5*	*17.0*	*18.3*	*19.6*	*20.8*	*22.0*	*23.0*	*24.1*
U			*8.35*	*9.82*	*11.0*	*12.1*	*13.0*	*13.9*	*14.8*	*15.6*	*16.3*	*17.1*
125x75x2.0RHS	C450L0	6.07	3920	3400	3040	2780	2570	2410	2270	2160	2060	1970
D			*10.1*	*11.7*	*13.1*	*14.4*	*15.5*	*16.6*	*17.6*	*18.6*	*19.5*	*20.4*
U			*7.18*	*8.31*	*9.28*	*10.2*	*11.0*	*11.8*	*12.5*	*13.2*	*13.8*	*14.4*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-4.07 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	5.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 86 m/s
V_{hs} = 55 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for single span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4190	3930	3730	3510	3250	3040	2870	2730	2600	2490
D			*10.8*	*13.5*	*16.1*	*18.1*	*19.6*	*20.9*	*22.2*	*23.5*	*24.6*	*25.7*
U			*7.68*	*9.60*	*11.4*	*12.9*	*13.9*	*14.9*	*15.8*	*16.7*	*17.5*	*18.2*
100x50x4.0RHS	C450L0	8.49	4050	3790	3530	3220	2980	2790	2630	2500	2380	2280
D			*10.5*	*13.1*	*15.2*	*16.6*	*18.0*	*19.2*	*20.4*	*21.5*	*22.5*	*23.6*
U			*7.42*	*9.26*	*10.8*	*11.8*	*12.7*	*13.6*	*14.5*	*15.3*	*16.0*	*16.7*
100x50x3.5RHS	C450L0	7.53	3960	3700	3340	3050	2830	2650	2490	2370	2260	2160
D			*10.2*	*12.7*	*14.4*	*15.8*	*17.1*	*18.3*	*19.3*	*20.4*	*21.4*	*22.3*
U			*7.26*	*9.04*	*10.2*	*11.2*	*12.1*	*12.9*	*13.7*	*14.5*	*15.2*	*15.8*
100x50x3.0RHS	C450L0	6.6	3870	3520	3150	2880	2670	2500	2350	2230	2130	2040
D			*10.00*	*12.1*	*13.6*	*14.9*	*16.1*	*17.2*	*18.2*	*19.2*	*20.2*	*21.1*
U			*7.09*	*8.60*	*9.62*	*10.6*	*11.4*	*12.2*	*12.9*	*13.6*	*14.3*	*15.0*
100x50x2.5RHS	C450L0	5.56	3730	3250	2910	2660	2460	2300	2170	2060	1970	1880
D			*9.63*	*11.2*	*12.5*	*13.7*	*14.8*	*15.8*	*16.8*	*17.7*	*18.7*	*19.4*
U			*6.83*	*7.94*	*8.89*	*9.75*	*10.5*	*11.2*	*11.9*	*12.6*	*13.2*	*13.8*
100x50x2.0RHS	C450L0	4.50	3360	2920	2610	2380	2210	2070	1950	1850	1760	1690
D			*8.68*	*10.1*	*11.2*	*12.3*	*13.3*	*14.3*	*15.1*	*15.9*	*16.7*	*17.5*
U			*6.16*	*7.13*	*7.97*	*8.72*	*9.45*	*10.1*	*10.7*	*11.3*	*11.8*	*12.4*
100x50x1.6RHS	C450L0	3.64	2790	2410	2160	1970	1830	1710	1610	1530	1460	1400
D			*7.21*	*8.30*	*9.30*	*10.2*	*11.0*	*11.8*	*12.5*	*13.2*	*13.8*	*14.5*
U			*5.11*	*5.89*	*6.60*	*7.22*	*7.82*	*8.35*	*8.85*	*9.34*	*9.81*	*10.3*
100x100x3.0SHS	C450L0	8.96	4370	3990	3570	3270	3030	2830	2670	2530	2420	2320
D			*11.3*	*13.7*	*15.4*	*16.9*	*18.3*	*19.5*	*20.7*	*21.8*	*22.9*	*24.0*
U			*8.01*	*9.75*	*10.9*	*12.0*	*13.0*	*13.8*	*14.7*	*15.5*	*16.3*	*17.0*
100x100x2.5SHS	C450L0	7.53	4010	3480	3120	2850	2640	2470	2330	2210	2110	2020
D			*10.4*	*12.0*	*13.4*	*14.7*	*15.9*	*17.0*	*18.1*	*19.0*	*20.0*	*20.9*
U			*7.35*	*8.50*	*9.53*	*10.4*	*11.3*	*12.1*	*12.8*	*13.5*	*14.2*	*14.8*
100x100x2.0SHS	C450L0	6.07	3410	2960	2650	2420	2240	2100	1980	1880	1790	1720
D			*8.81*	*10.2*	*11.4*	*12.5*	*13.5*	*14.5*	*15.3*	*16.2*	*17.0*	*17.8*
U			*6.25*	*7.23*	*8.09*	*8.87*	*9.58*	*10.3*	*10.9*	*11.5*	*12.0*	*12.6*
90x90x2.0SHS	C450L0	5.45	3150	2730	2440	2230	2070	1940	1830	1730	1650	1580
D			*8.14*	*9.40*	*10.5*	*11.5*	*12.5*	*13.4*	*14.2*	*14.9*	*15.6*	*16.3*
U			*5.77*	*6.67*	*7.45*	*8.17*	*8.85*	*9.48*	*10.1*	*10.6*	*11.1*	*11.6*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-4.07 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	5.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	86 m/s
V_{hs} =	55 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.1
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN)* *(U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
150x50x6.0RHS	C450L0	16.7	6930	6460	5790	5300	4910	4600	4340	4120	3930	3760
D			*44.7*	*55.6*	*62.3*	*68.4*	*74.0*	*79.2*	*84.1*	*88.7*	*93.0*	*97.1*
U			*31.7*	*39.5*	*44.2*	*48.6*	*52.5*	*56.2*	*59.6*	*62.9*	*66.0*	*68.9*
150x50x5.0RHS	C450L0	14.2	6750	6020	5400	4930	4570	4280	4040	3830	3660	3500
D			*43.6*	*51.8*	*58.1*	*63.7*	*68.9*	*73.7*	*78.3*	*82.4*	*86.7*	*90.4*
U			*30.9*	*36.8*	*41.2*	*45.2*	*48.8*	*52.3*	*55.5*	*58.5*	*61.5*	*64.1*
150x50x4.0RHS	C450L0	11.6	5830	5010	4440	4020	3690	3430	3210	3020	2860	2720
D			*37.6*	*43.1*	*47.8*	*51.9*	*55.6*	*59.1*	*62.2*	*65.0*	*67.7*	*70.3*
U			*26.7*	*30.6*	*33.9*	*36.8*	*39.4*	*41.9*	*44.1*	*46.1*	*48.0*	*49.8*
150x50x3.0RHS	C450L0	8.96	4730	4000	3500	3140	2850	2620	2430	2270	2140	2020
D			*30.5*	*34.4*	*37.7*	*40.5*	*42.9*	*45.1*	*47.1*	*48.9*	*50.7*	*52.2*
U			*21.7*	*24.4*	*26.7*	*28.8*	*30.5*	*32.0*	*33.4*	*34.7*	*35.9*	*37.0*
150x50x2.5RHS	C450L0	7.53	3940	3280	2840	2510	2260	2060	1890	1760	1640	1540
D			*25.4*	*28.2*	*30.6*	*32.4*	*34.0*	*35.5*	*36.6*	*37.9*	*38.8*	*39.8*
U			*18.0*	*20.0*	*21.7*	*23.0*	*24.2*	*25.2*	*26.0*	*26.9*	*27.5*	*28.2*
150x50x2.0RHS	C450L0	6.07	2820	2300	1950	1690	1500	1350	1230	1130	1040	970
D			*18.2*	*19.8*	*21.0*	*21.8*	*22.6*	*23.2*	*23.8*	*24.3*	*24.6*	*25.1*
U			*12.9*	*14.0*	*14.9*	*15.5*	*16.0*	*16.5*	*16.9*	*17.3*	*17.5*	*17.8*
125x75x6.0RHS	C450L0	16.7	6600	5790	5150	4680	4310	4010	3760	3550	3370	3210
D			*42.6*	*49.8*	*55.4*	*60.4*	*64.9*	*69.0*	*72.8*	*76.4*	*79.8*	*82.9*
U			*30.2*	*35.4*	*39.3*	*42.9*	*46.1*	*49.0*	*51.7*	*54.2*	*56.6*	*58.8*
125x75x5.0RHS	C450L0	14.2	6220	5350	4750	4310	3970	3690	3460	3260	3090	2940
D			40.2	46.1	51.1	55.7	59.8	63.5	67.0	70.2	73.2	75.9
U			28.5	32.7	36.3	39.5	42.4	45.1	47.5	49.8	51.9	53.9
125x75x4.0RHS	C450L0	11.6	5580	4780	4240	3830	3520	3270	3050	2880	2720	2590
D			36.0	41.2	45.6	49.5	53.0	56.3	59.1	62.0	64.4	66.9
U			25.6	29.2	32.4	35.1	37.6	39.9	41.9	44.0	45.7	47.5
125x75x3.0RHS	C450L0	8.96	4700	4000	3520	3170	2890	2670	2490	2330	2200	2080
D			*30.3*	*34.4*	*37.9*	*40.9*	*43.5*	*46.0*	*48.2*	*50.1*	*52.1*	*53.7*
U			*21.5*	*24.4*	*26.9*	*29.0*	*30.9*	*32.6*	*34.2*	*35.6*	*36.9*	*38.1*
125x75x2.5RHS	C450L0	7.53	3820	3220	2810	2510	2280	2090	1940	1810	1690	1600
D			*24.7*	*27.7*	*30.2*	*32.4*	*34.4*	*36.0*	*37.6*	*39.0*	*40.0*	*41.3*
U			*17.5*	*19.7*	*21.5*	*23.0*	*24.4*	*25.5*	*26.7*	*27.6*	*28.4*	*29.3*
125x75x2.0RHS	C450L0	6.07	2860	2370	2030	1790	1610	1460	1340	1240	1150	1080
D			*18.5*	*20.4*	*21.8*	*23.1*	*24.3*	*25.1*	*26.0*	*26.7*	*27.2*	*27.9*
U			*13.1*	*14.5*	*15.5*	*16.4*	*17.2*	*17.8*	*18.4*	*18.9*	*19.3*	*19.8*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-4.07 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	5.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load

V_{hu} = 86 m/s
V_{hs} = 55 m/s
G = 0.9 kPa
$C_{p,n}$ ↑ = -1.1
$C_{p,n}$ ↓ = 1.05
Q_1 = 0.25 kPa
Q_2 = 1.1 kN
Continuity Factor = 1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

DuraGalPlus section *d* x *b* x *t* mm x mm x mm	Grade	Mass per metre kg/m	Maximum span (mm) *(D)ownward force at connection (kN) (U)pward force at connection (kN)* Dimension A for continuous span									
			900	1200	1500	1800	2100	2400	2700	3000	3300	3600
100x50x5.0RHS	C450L0	10.3	4940	4290	3840	3510	3250	3040	2870	2730	2600	2490
D			*31.9*	*36.9*	*41.3*	*45.3*	*49.0*	*52.3*	*55.6*	*58.8*	*61.6*	*64.3*
U			*22.6*	*26.2*	*29.3*	*32.2*	*34.7*	*37.1*	*39.4*	*41.7*	*43.7*	*45.6*
100x50x4.0RHS	C450L0	8.49	4530	3940	3530	3220	2980	2790	2630	2500	2380	2280
D			*29.2*	*33.9*	*38.0*	*41.6*	*44.9*	*48.0*	*50.9*	*53.8*	*56.3*	*58.9*
U			*20.7*	*24.1*	*26.9*	*29.5*	*31.8*	*34.1*	*36.1*	*38.2*	*40.0*	*41.8*
100x50x3.5RHS	C450L0	7.53	4300	3730	3340	3050	2830	2650	2490	2370	2260	2160
D			*27.8*	*32.1*	*35.9*	*39.4*	*42.6*	*45.6*	*48.2*	*51.0*	*53.5*	*55.8*
U			*19.7*	*22.8*	*25.5*	*27.9*	*30.2*	*32.4*	*34.2*	*36.2*	*38.0*	*39.6*
100x50x3.0RHS	C450L0	6.6	3770	3230	2870	2590	2380	2210	2070	1950	1850	1760
D			*24.3*	*27.8*	*30.9*	*33.4*	*35.9*	*38.1*	*40.1*	*42.0*	*43.8*	*45.5*
U			*17.3*	*19.7*	*21.9*	*23.7*	*25.4*	*27.0*	*28.4*	*29.8*	*31.1*	*32.2*
100x50x2.5RHS	C450L0	5.56	3340	2840	2510	2260	2060	1910	1780	1670	1580	1500
D			*21.6*	*24.5*	*27.0*	*29.2*	*31.0*	*32.9*	*34.5*	*35.9*	*37.4*	*38.7*
U			*15.3*	*17.3*	*19.2*	*20.7*	*22.0*	*23.3*	*24.5*	*25.5*	*26.5*	*27.5*
100x50x2.0RHS	C450L0	4.50	2750	2310	2020	1800	1630	1490	1380	1290	1210	1140
D			*17.8*	*19.9*	*21.7*	*23.2*	*24.6*	*25.7*	*26.7*	*27.8*	*28.6*	*29.4*
U			*12.6*	*14.1*	*15.4*	*16.5*	*17.4*	*18.2*	*19.0*	*19.7*	*20.3*	*20.9*
100x50x1.6RHS	C450L0	3.64	2020	1670	1430	1260	1130	1020	940	870	810	760
D			*13.0*	*14.4*	*15.4*	*16.3*	*17.0*	*17.6*	*18.2*	*18.7*	*19.2*	*19.6*
U			*9.25*	*10.2*	*10.9*	*11.5*	*12.1*	*12.5*	*12.9*	*13.3*	*13.6*	*13.9*
100x100x3.0SHS	C450L0	8.96	3480	2900	2510	2220	2000	1820	1670	1550	1450	1360
D			*22.5*	*25.0*	*27.0*	*28.7*	*30.1*	*31.3*	*32.3*	*33.4*	*34.3*	*35.1*
U			*15.9*	*17.7*	*19.2*	*20.3*	*21.4*	*22.2*	*22.9*	*23.7*	*24.4*	*24.9*
100x100x2.5SHS	C450L0	7.53	3150	2640	2290	2030	1830	1670	1540	1440	1340	1260
D			*20.3*	*22.7*	*24.6*	*26.2*	*27.6*	*28.8*	*29.8*	*31.0*	*31.7*	*32.5*
U			*14.4*	*16.1*	*17.5*	*18.6*	*19.6*	*20.4*	*21.2*	*22.0*	*22.5*	*23.1*
100x100x2.0SHS	C450L0	6.07	2780	2340	2030	1810	1640	1510	1390	1300	1220	1150
D			*18.0*	*20.1*	*21.8*	*23.4*	*24.7*	*26.0*	*26.9*	*28.0*	*28.9*	*29.7*
U			*12.7*	*14.3*	*15.5*	*16.6*	*17.5*	*18.4*	*19.1*	*19.8*	*20.5*	*21.1*
90x90x2.0SHS	C450L0	5.45	2600	2190	1910	1710	1550	1420	1320	1230	1150	1090
D			*16.8*	*18.9*	*20.6*	*22.1*	*23.4*	*24.5*	*25.6*	*26.5*	*27.2*	*28.2*
U			*11.9*	*13.4*	*14.6*	*15.7*	*16.6*	*17.3*	*18.1*	*18.8*	*19.3*	*20.0*

Notes:

1. $W_u = 0.6C_{p,n}V_{hu}^2 \times 10^{-3}$ kPa, $W_s = 0.6C_{p,n}V_{hs}^2 \times 10^{-3}$ kPa
2. Values used in determining spans.

Serviceability

Mode	Load	Limit
1a =	G	Span/300
1b =	G	12 mm
2a =	Q_1	Span/250
4a =	W_s	Span/150
7a =	Q_2	Span/250

Strength

Mode	Load		Value
5 =	Dead & Live Load (1.2G + 1.5Q_1)↓	=	1.46 kPa
8 =	Dead & Person Load (1.2G + 1.5Q_2)↓		
6 =	Dead & Wind Load (0.9G + W_u)↑	=	-4.07 kPa
9 =	Dead & Wind Load (1.2G + W_u)↓	=	5.74 kPa
10 =	Combined Bend/Bear Maximum (Case 5, 8, 9)		

Load	
V_{hu} =	86 m/s
V_{hs} =	55 m/s
G =	0.9 kPa
$C_{p,n}$ ↑ =	-1.1
$C_{p,n}$ ↓ =	1.05
Q_1 =	0.25 kPa
Q_2 =	1.1 kN
Continuity Factor =	1

3. These tables only apply to beams supporting standard trusses or rafters. Point loads acting with in the span have not been considered. Trusses are assumed to be supported at the house wall.
4. If variation between spans exceeds 30% of the larger span, the beam should be considered as single span between supports.
5. The values underneath the span are the maximum design loads at the support for the given span. D refers to downward force, U to upward force. For continuous spans the loads are for an inner support.
6. The beam is to be installed with the dimension 'd' as the vertical dimension.
7. Rafter loads have been considered as a uniformly distributed load acting on the verandah beams.

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