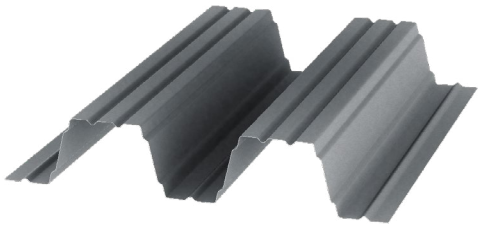
SMD® STOCKYARDS
Stock Suppliers of Steel Decking Profiles

Product Data Sheet Profile Details and Sectional Properties

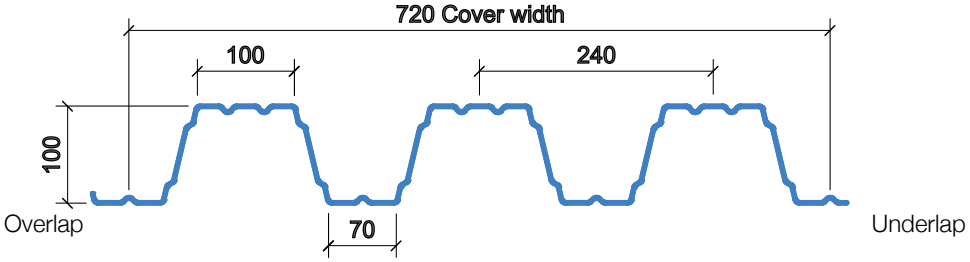
SR100+™

Roof deck profile



Deck profile

100mm deck profile typically used as the structural deck for Single Ply Membrane, Double Skin built-up, Standing Seam, Green Roof and Asphalt systems.



Options

- S350 grade steel in accordance with BS EN 10143:2016 and BS EN 10346:2015
- Available in two coating options:-

Galvanised	Hot dip galvanised with a minimum coating mass of 275g/m² (S350GD-Z275)
Polyester White	Hot dip galvanised with a minimum coating mass of 150g/m² (S350GD-Z150) with 25 micron bright white polyester finish to the underside

- 0.7mm, 0.9mm and 1.2mm gauge options available to suit common steel beam spacings.
- Maximum sheet lengths up to 12m in packs of 10-20 sheets to suit project specific details

Profile properties

						Top Flange in Compression		Bottom Flange in Compression	
Nominal Thickness mm	Available Grade N/mm²	Depth of Profile mm	Weight kg/m²	Weight kN/m²	Area of Steel (mm²/m)	Moment Capacity kNm/m	Moment of Inertia cm⁴/m	Moment Capacity kNm/m	Moment of Inertia cm⁴/m
0.7	**S350**	**100**	**9.24**	**0.09**	**1118**	**7.46**	**179.06**	**8.41**	**154.04**
0.9	**S350**	**100**	**11.91**	**0.12**	**1457**	**11.62**	**211.3**	**10.74**	**196.21**
1.2	**S350**	**100**	**15.90**	**0.16**	**1966**	**21.77**	**349.87**	**17.73**	**351.59**

Section properties are calculated assisted by testing in accordance with Eurocode 3.

Load tables

Positive Imposed Load (Gravity) kN/m²

Span Condition	Gauge	Span m 3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2
Single	0.7	3.20	3.00	2.83	2.67	2.53	2.26	1.95	1.70	1.48	1.31	1.16	1.03	0.92	0.82	0.74	0.67	0.61
	0.9	5.43	5.09	4.34	3.65	3.11	2.66	2.30	2.00	1.75	1.54	1.36	1.21	1.08	0.97	0.87	0.79	0.71
	1.2	9.76	8.61	7.18	6.05	5.14	4.41	3.81	3.31	2.90	2.55	2.26	2.01	1.79	1.61	1.45	1.31	1.18
Double	0.7	2.91	2.65	2.42	2.22	2.04	1.89	1.75	1.63	1.52	1.42	1.33	1.25	1.18	1.11	1.05	0.99	0.94
	0.9	4.22	3.82	3.48	3.18	2.92	2.69	2.49	2.31	2.15	2.00	1.87	1.75	1.65	1.55	1.46	1.31	1.19
	1.2	7.17	6.49	5.90	5.39	4.94	4.55	4.20	3.90	3.62	3.38	3.15	2.95	2.77	2.61	2.46	2.32	2.19
Multi	0.7	3.45	3.14	2.88	2.64	2.44	2.26	2.09	1.95	1.82	1.70	1.60	1.50	1.42	1.34	1.26	1.20	1.13
	0.9	5.04	4.57	4.16	3.81	3.50	3.23	2.99	2.78	2.59	2.42	2.26	2.02	1.80	1.62	1.46	1.31	1.19
	1.2	8.57	7.77	7.07	6.47	5.94	5.48	5.07	4.70	4.37	4.08	3.82	3.58	3.36	3.07	2.76	2.50	2.26

Negative Imposed Load (Uplift) kN/m²

Span Condition	Gauge	Span m 3	3.2	3.4	3.6	3.8	4	4.2	4.4	4.6	4.8	5	5.2	5.4	5.6	5.8	6	6.2
Single	0.7	3.20	3.00	2.83	2.67	2.53	2.40	2.24	1.94	1.70	1.50	1.32	1.18	1.05	0.94	0.85	0.77	0.69
	0.9	5.43	5.09	4.79	4.42	3.84	3.30	2.85	2.48	2.17	1.91	1.69	1.50	1.34	1.20	1.08	0.98	0.89
	1.2	9.76	9.15	8.18	7.30	6.55	5.91	5.10	4.44	3.88	3.42	3.02	2.69	2.40	2.15	1.94	1.75	1.59
Double	0.7	2.75	2.49	2.27	2.08	1.91	1.77	1.64	1.52	1.42	1.32	1.24	1.16	1.09	1.03	0.97	0.92	0.87
	0.9	4.40	3.99	3.63	3.32	3.06	2.82	2.61	2.42	2.25	2.10	1.97	1.85	1.73	1.63	1.54	1.46	1.38
	1.2	7.98	7.24	6.60	6.05	5.56	5.14	4.76	4.42	4.12	3.85	3.60	3.38	3.18	2.99	2.82	2.67	2.53
Multi	0.7	3.27	2.97	2.71	2.49	2.29	2.12	1.96	1.83	1.70	1.59	1.49	1.40	1.32	1.24	1.17	1.11	1.05
	0.9	5.24	4.76	4.34	3.98	3.66	3.38	3.13	2.91	2.71	2.53	2.37	2.23	2.09	1.97	1.80	1.63	1.48
	1.2	9.49	8.63	7.88	7.23	6.66	6.15	5.71	5.31	4.95	4.63	4.33	4.07	3.83	3.59	3.23	2.92	2.64

Tables consider deflection limits of:-

Positive load (Gravity) - Span /200

Negative loads (Uplift) - Span /150

Figures shaded indicate where design is governed by deflection.

These tables do not consider loads applied during construction of the roof finish - additional load-distributing measures may be required in some situations.

All loads within table consider a partial factor of 1.5.

Fixing checks for uplift must be considered separately.

Tables based on bearing width (steel beam) of 100mm.

Numbers shown **RED** are not recommended as sheet lengths exceed maximum for logistic and manual handling reasons.

These load/span tables do not consider plastic design (moment redistribution). Improved loadings may be possible for some double and multi-span configurations. Contact SMD Technical Team for further guidance.

Elements®

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Watch SMD's YouTube tutorial on the new roof deck section of Elements

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www.smdstockyards.co.uk

Brentwood London
Tel: +44 (0) 1277 812490
Email: alan@smdstockyards.co.uk
Unit 27, Childerditch Industrial Park, Little Warley, Essex CM13 3HD
Fax: +44 (0) 1277 812491

Ashbourne Midlands
Tel: +44 (0) 1335 300999
Email: jade@smdstockyards.co.uk
Moor Farm Road West, The Airfield, Ashbourne, Derbyshire DE6 1HD
Fax: +44 (0) 1335 300888

Leeds Northern
Tel: +44 (0) 1202 714990
Email: kevin@smdstockyards.co.uk
Calderbank, River Street, Brighouse, West Yorkshire HD6 1LU
Fax: +44 (0) 1202 714980

Coatbridge Scotland
Tel: +44 (0) 1698 622202
Email: kevin@smdstockyards.co.uk
12 Palacecraig Street, Coatbridge, North Lanarkshire ML5 4RY
Fax: +44 (0) 1202 714980

Registered Office: SMD Stockyards Ltd. The Outlook, Ling Road, Tower Park, Poole, Dorset BH12 4PY Registered No: 8324990