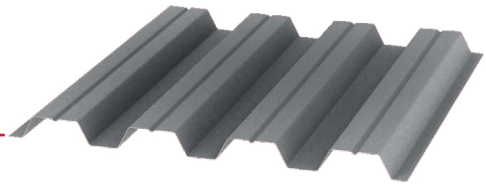
THRUDECKServices
Metal Decking Contractors

Product Data Sheet SMD Profile Details and Sectional Properties

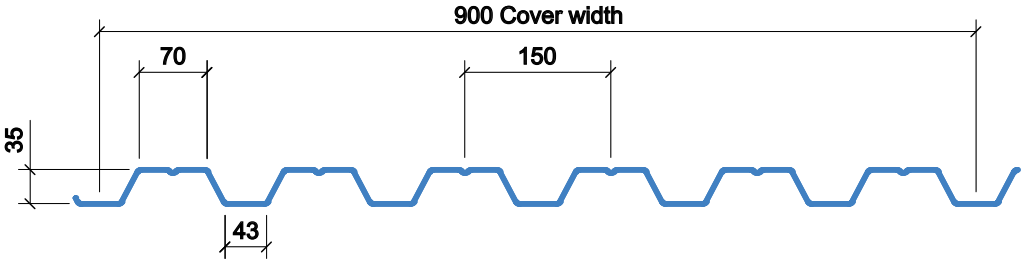
SR35+™

Roof deck profile



Deck profile

35mm deck profile typically used as the structural deck for Single Ply Membrane, Double Skin built-up, Standing Seam, Green Roof and Asphalt systems. Also available as part of the Protex Insulated System.



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 purlin spacings.
- Maximum sheet lengths up to 12m in packs of 10-35 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	35	7.58	0.07	895	3.42	20.1	2.95	19.8
0.9	S350	35	9.76	0.09	1166	4.26	23.5	4.16	22.4
1.2	S350	35	13.03	0.13	1572	7.45	35.7	6.60	35.7

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 1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8
Single	0.7	9.38	7.37	5.90	4.80	3.96	3.30	2.78	2.36	2.03	1.75	1.52	1.33	1.17	1.04	0.92	0.82	0.74
	0.9	10.98	8.63	6.91	5.62	4.63	3.86	3.25	2.77	2.37	2.05	1.78	1.56	1.37	1.21	1.08	0.96	0.86
	1.2	16.64	13.09	10.48	8.52	7.02	5.85	4.93	4.19	3.59	3.10	2.70	2.36	2.08	1.84	1.64	1.46	1.31
Double	0.7	5.59	4.99	4.48	4.05	3.69	3.37	3.09	2.85	2.63	2.44	2.27	2.12	1.98	1.86	1.75	1.62	1.45
	0.9	8.62	7.67	6.88	6.20	5.63	5.13	4.70	4.32	3.95	3.41	2.97	2.60	2.29	2.02	1.80	1.61	1.44
	1.2	14.47	12.85	11.49	10.35	9.37	8.53	7.80	7.16	6.60	6.10	5.58	4.88	4.30	3.80	3.38	3.02	2.71
Multi	0.7	6.59	5.90	5.31	4.81	4.38	4.01	3.68	3.40	3.15	2.92	2.72	2.54	2.31	2.04	1.81	1.62	1.45
	0.9	10.22	9.11	8.18	7.39	6.71	6.13	5.42	4.61	3.95	3.41	2.97	2.60	2.29	2.02	1.80	1.61	1.44
	1.2	17.18	15.29	13.70	12.36	11.21	10.21	9.35	8.60	7.43	6.42	5.58	4.88	4.30	3.80	3.38	3.02	2.71

Negative Imposed Load (Uplift) kN/m²

Span Condition	Gauge	Span m 1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8
Single	0.7	9.46	8.73	7.74	6.29	5.18	4.32	3.64	3.10	2.65	2.29	1.99	1.75	1.54	1.36	1.21	1.08	0.97
	0.9	13.93	10.96	8.77	7.13	5.88	4.90	4.13	3.51	3.01	2.60	2.26	1.98	1.74	1.54	1.37	1.22	1.10
	1.2	22.23	17.48	14.00	11.38	9.38	7.82	6.59	5.60	4.80	4.15	3.61	3.16	2.78	2.46	2.19	1.95	1.75
Double	0.7	5.92	5.30	4.78	4.33	3.95	3.61	3.32	3.07	2.84	2.64	2.46	2.30	2.15	2.02	1.90	1.79	1.61
	0.9	8.72	7.76	6.96	6.28	5.70	5.20	4.76	4.38	4.04	3.74	3.47	3.24	2.90	2.57	2.28	2.04	1.83
	1.2	15.30	13.62	12.21	11.02	9.99	9.11	8.35	7.67	7.08	6.56	6.01	5.26	4.63	4.10	3.64	3.25	2.92
Multi	0.7	6.96	6.24	5.64	5.12	4.67	4.29	3.95	3.65	3.38	3.15	2.94	2.75	2.56	2.27	2.01	1.80	1.61
	0.9	10.32	9.20	8.27	7.47	6.79	6.20	5.69	5.24	4.84	4.33	3.77	3.30	2.90	2.57	2.28	2.04	1.83
	1.2	18.11	16.15	14.51	13.11	11.92	10.88	9.98	9.19	8.00	6.91	6.01	5.26	4.63	4.10	3.64	3.25	2.92

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 (purlin) of 60mm.

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