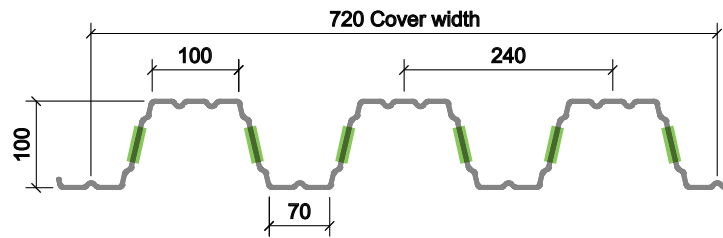


## Product Data Sheet SMD Profile Details and Sectional Properties

# SR100<sup>+</sup>™



■ Perforated Zone  
(where applicable)

### Description

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.

### Benefits

- Long-spanning shallow deck
- Can be manually installed with limited need for additional lifting plant
- Perforated option available for enhanced acoustic performance

### Gauge

- 0.7mm (Steel)
- 0.9mm (Steel)
- 1.2mm (Steel)

### Specification

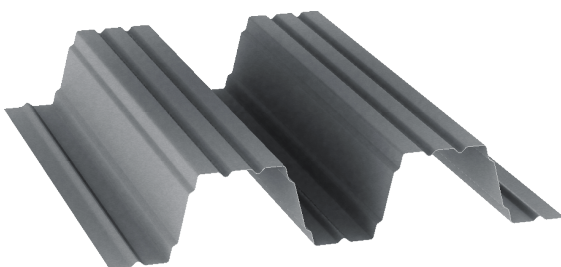
- 720mm cover width
- 100mm deep
- Perforated webs available providing 10.2% voided area (exposed) or 16.5% (cover) with pattern RB4546, 4.5mm holes @ 6.3mm diagonal pitch.

### Grade

- Steel S350


### Coatings and Finishes

- Galvanised Steel
- Interior liner
- Perforated



# Profile Properties

## Product Specification and Options

Product Code, Material & Option	Nominal Thickness mm	Weight kg/m <sup>2</sup>	Weight kN/m <sup>2</sup>	Top Flange in Compression		Bottom Flange in Compression	
				Moment Capacity kNm/m	Moment of Inertia cm <sup>4</sup> /m	Moment Capacity kNm/m	Moment of Inertia cm <sup>4</sup> /m
<b>SR100+</b>	<b>0.7</b>	9.24	0.09	7.46	179.06	8.41	154.04
	<b>0.9</b>	11.91	0.12	11.62	211.30	10.74	196.21
	<b>1.2</b>	15.9	0.16	21.77	349.87	17.73	351.59
 <b>SR100+ P PERFORATED</b>	<b>0.7</b>	8.32	0.08	7.37	115.50	7.07	123.42
	<b>0.9</b>	10.72	0.11	11.07	163.97	10.63	176.02
	<b>1.2</b>	14.31	0.14	16.84	243.49	15.39	248.29

## Load Tables Conditions

Tables consider deflection limits of:

Positive load (Gravity) - Span /200

Negative loads (Uplift) - Span /150

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.

The deck self-weight has not been allowed for in the generation of these tables, so must be included in the applied loads referenced.

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

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

For spans not covered in these tables or indicated as '-', contact SMD Technical Team or Download Elements® Design Software available from SMD website.

Fixing checks for uplift must be considered separately.

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

Numbers shown **red** exceed maximum Health and Safety manual handling guidelines, additional lifting plant is recommended for these situations.

# Load Tables \_ Steel

Span m Unfactored Applied Load (kN/m<sup>2</sup>)

Span Condition	Gauge	Span m Unfactored Applied Load (kN/m <sup>2</sup> )															
		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	
Positive Imposed Load (Gravity) kN/m <sup>2</sup>	Single	0.70	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
		0.90	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
		1.20	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	0.70	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
		0.90	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
		1.20	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	0.70	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
		0.90	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
		1.20	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/m <sup>2</sup>	Single	0.70	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
		0.90	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
		1.20	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	0.70	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
		0.90	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
		1.20	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	0.70	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
		0.90	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
		1.20	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
Positive Imposed Load (Gravity) kN/m <sup>2</sup>	Single	0.70	-	-	1.88	1.66	1.43	1.25	1.09	0.96	0.85	0.76	0.67	0.61	0.54	0.49	0.45
		0.90	-	-	2.66	2.28	1.97	1.71	1.50	1.32	1.17	1.04	0.93	0.83	0.75	0.67	0.61
		1.20	-	-	3.80	3.26	2.81	2.45	2.14	1.89	1.67	1.48	1.32	1.19	1.07	0.97	0.87
	Double	0.70	-	-	0.73	0.68	0.64	0.61	0.57	0.54	0.52	0.49	0.47	0.45	0.43	0.41	0.39
		0.90	-	-	1.21	1.14	1.07	1.01	0.95	0.90	0.85	0.81	0.77	0.74	0.70	0.67	0.64
		1.20	-	-	2.13	1.99	1.86	1.75	1.65	1.56	1.48	1.40	1.33	1.26	1.20	1.15	1.10
	Multi	0.70	-	-	0.85	0.79	0.75	0.71	0.67	0.63	0.60	0.57	0.55	0.52	0.50	0.48	0.46
		0.90	-	-	1.41	1.32	1.24	1.17	1.11	1.05	1.00	0.95	0.90	0.86	0.82	0.79	0.75
		1.20	-	-	2.48	2.33	2.18	2.05	1.94	1.83	1.73	1.65	1.56	1.49	1.42	1.35	1.29
Negative Imposed Load (Uplift) kN/m <sup>2</sup>	Single	0.70	-	-	1.81	1.72	1.49	1.30	1.14	1.00	0.88	0.79	0.70	0.63	0.57	0.51	0.46
		0.90	-	-	2.77	2.38	2.05	1.79	1.56	1.38	1.22	1.08	0.97	0.87	0.78	0.70	0.64
		1.20	-	-	3.85	3.30	2.85	2.48	2.17	1.91	1.69	1.50	1.34	1.20	1.08	0.98	0.89
	Double	0.70	-	-	0.71	0.67	0.63	0.60	0.56	0.54	0.51	0.48	0.46	0.44	0.42	0.40	0.39
		0.90	-	-	1.17	1.09	1.03	0.97	0.92	0.87	0.83	0.79	0.75	0.71	0.68	0.65	0.62
		1.20	-	-	2.02	1.89	1.78	1.67	1.58	1.49	1.42	1.35	1.28	1.22	1.16	1.11	1.06
	Multi	0.70	-	-	0.82	0.78	0.73	0.69	0.66	0.62	0.59	0.56	0.54	0.51	0.49	0.47	0.45
		0.90	-	-	1.35	1.27	1.20	1.13	1.07	1.01	0.96	0.92	0.87	0.83	0.80	0.76	0.73
		1.20	-	-	2.35	2.20	2.07	1.95	1.85	1.75	1.66	1.58	1.50	1.43	1.36	1.30	1.25