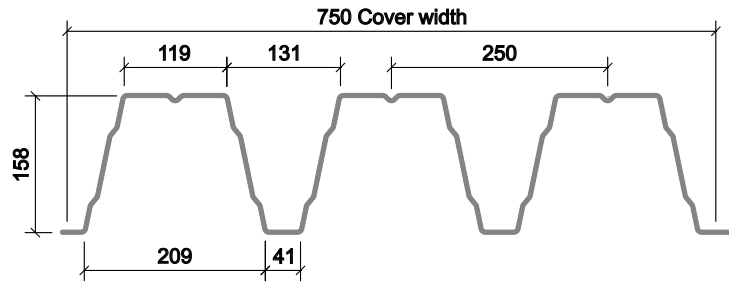


# SR158<sup>™</sup>



## Description

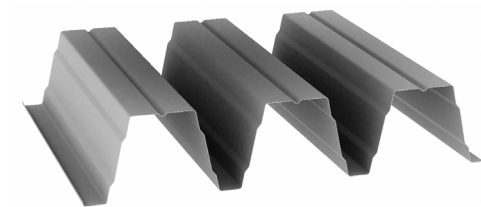
Deck profile typically used as the structural deck for single ply membrane, double skin built-up, standing seam, green roof and asphalt systems.

## Benefits

- Provides uncluttered soffit when designed as part of a diaphragm roof
- Perforated option available for enhanced acoustic performance
- Bespoke lifting aid available for ease of installation

## Specification

- 750mm cover width
- 158mm deep



## Gauges

- 0.75mm
- 0.88mm
- 1.00mm
- 1.25mm
- 1.50mm

## Steel Grade

- S320

## Coatings and Finishes

- Galvanised
- Interior liner
- Perforated

## Profile Properties

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
0.75	11.78	0.116	14.80	426.95	12.42	436.44
0.88	13.82	0.136	18.60	519.38	15.89	527.79
1.00	15.70	0.154	22.24	603.02	19.55	603.01
1.25	19.63	0.193	29.78	759.61	26.49	759.60
1.50	23.55	0.231	37.14	916.01	31.94	916.01

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

## Load Tables

### Positive Imposed Load (Gravity) kN/m<sup>2</sup>

Span Condition	Gauge	Span m Unfactored Applied Load (kN/m <sup>2</sup> )														
		6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8
Single	0.75	1.67	1.51	1.37	1.25	1.14	1.05	0.96	0.89	0.82	0.76	0.70	0.65	0.61	0.57	0.53
	0.88	1.97	1.79	1.62	1.48	1.35	1.24	1.14	1.05	0.97	0.90	0.83	0.77	0.72	0.67	0.62
	1.00	2.23	2.02	1.84	1.68	1.53	1.40	1.29	1.19	1.10	1.02	0.94	0.87	0.81	0.76	0.71
	1.25	2.83	2.57	2.34	2.13	1.95	1.79	1.64	1.51	1.39	1.29	1.20	1.11	1.03	0.96	0.90
	1.50	3.42	3.10	2.82	2.57	2.35	2.15	1.98	1.82	1.68	1.56	1.44	1.34	1.25	1.16	1.08
Double	0.75	2.46	2.33	2.22	2.11	2.01	1.90	1.80	1.70	1.61	1.53	1.46	1.39	1.32	1.26	1.20
	0.88	3.23	3.06	2.90	2.75	2.61	2.48	2.37	2.25	2.15	2.06	1.97	1.86	1.73	1.61	1.50
	1.00	3.88	3.67	3.47	3.29	3.12	2.96	2.82	2.68	2.56	2.44	2.27	2.11	1.96	1.83	1.70
	1.25	5.39	5.08	4.80	4.54	4.31	4.09	3.88	3.64	3.36	3.11	2.88	2.68	2.49	2.32	2.16
	1.50	6.50	6.13	5.79	5.48	5.20	4.93	4.68	4.39	4.05	3.75	3.47	3.23	3.00	2.80	2.61
Multi	0.75	2.59	2.43	2.28	2.14	2.02	1.90	1.80	1.68	1.55	1.43	1.33	1.23	1.15	1.07	1.00
	0.88	3.50	3.28	3.07	2.80	2.56	2.35	2.16	1.99	1.83	1.70	1.57	1.46	1.36	1.27	1.18
	1.00	4.22	3.82	3.48	3.17	2.90	2.66	2.44	2.25	2.08	1.92	1.78	1.65	1.54	1.43	1.34
	1.25	5.36	4.86	4.42	4.03	3.68	3.38	3.10	2.86	2.64	2.44	2.26	2.10	1.95	1.82	1.70
	1.50	6.47	5.86	5.33	4.86	4.44	4.07	3.74	3.45	3.18	2.94	2.73	2.53	2.36	2.20	2.05

## Load Tables

### Negative Imposed Load (Uplift) kN/m<sup>2</sup>

Span Condition	Gauge	Span m Unfactored Applied Load (kN/m <sup>2</sup> )														
		6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8
Single	0.75	1.64	1.48	1.35	1.23	1.12	1.03	0.95	0.87	0.80	0.74	0.69	0.64	0.60	0.56	0.52
	0.88	1.97	1.79	1.62	1.48	1.35	1.24	1.14	1.05	0.97	0.90	0.83	0.77	0.72	0.67	0.62
	1.00	2.25	2.04	1.85	1.69	1.55	1.42	1.30	1.20	1.11	1.02	0.95	0.88	0.82	0.76	0.71
	1.25	2.83	2.57	2.34	2.13	1.95	1.79	1.64	1.51	1.39	1.29	1.20	1.11	1.03	0.96	0.90
	1.50	3.42	3.10	2.82	2.57	2.35	2.15	1.98	1.82	1.68	1.56	1.44	1.34	1.25	1.16	1.08
Double	0.75	2.26	2.11	1.98	1.87	1.76	1.66	1.57	1.48	1.41	1.34	1.27	1.21	1.15	1.10	1.05
	0.88	2.83	2.65	2.48	2.34	2.20	2.08	1.96	1.86	1.76	1.67	1.59	1.51	1.44	1.38	1.31
	1.00	3.37	3.16	2.96	2.79	2.63	2.48	2.34	2.22	2.10	2.00	1.90	1.81	1.72	1.64	1.57
	1.25	4.53	4.24	3.98	3.74	3.53	3.33	3.15	2.98	2.82	2.68	2.55	2.43	2.31	2.21	2.11
	1.50	5.68	5.32	4.99	4.69	4.42	4.17	3.94	3.73	3.54	3.36	3.19	3.04	2.90	2.76	2.61
Multi	0.75	2.82	2.64	2.48	2.32	2.12	1.95	1.79	1.65	1.52	1.41	1.30	1.21	1.13	1.05	0.98
	0.88	3.53	3.31	3.07	2.80	2.56	2.35	2.16	1.99	1.83	1.70	1.57	1.46	1.36	1.27	1.18
	1.00	4.21	3.86	3.51	3.20	2.92	2.68	2.46	2.27	2.09	1.94	1.80	1.67	1.55	1.45	1.35
	1.25	5.36	4.86	4.42	4.03	3.68	3.38	3.10	2.86	2.64	2.44	2.26	2.10	1.95	1.82	1.70
	1.50	6.47	5.86	5.33	4.86	4.44	4.07	3.74	3.45	3.18	2.94	2.73	2.53	2.36	2.20	2.05

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.

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.

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.

The SR deep deck range (>100mm) is supplied from various manufacturing facilities. Although all have similar product properties, specific designs must be checked at point of order/contract.