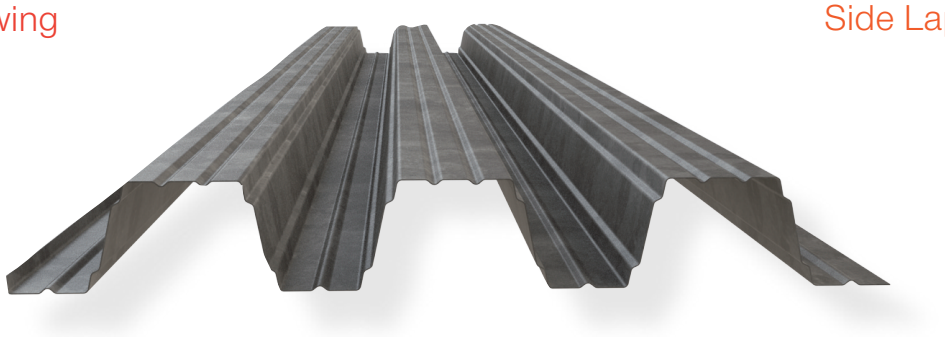
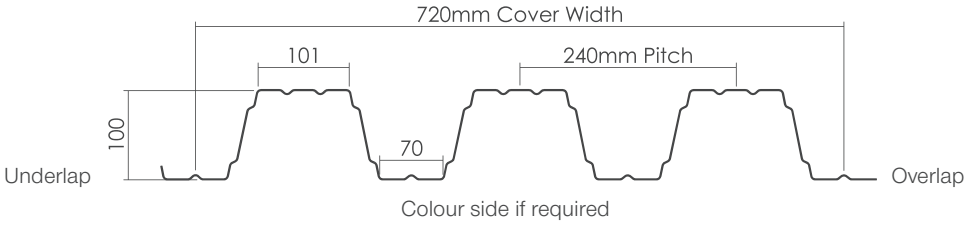
SR100+

Technical Drawing



Side Lap Detail

Profile



Profile Properties

- Cover Width 720mm
- Profile Depth 100mm
- Pitch 240mm
- Crown Width 101mm
- Valley Width 70mm
- Thickness available 0.7mm /0.9mm /1.2mm

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 to the interior surface

Options

- S350 Grade Steel in accordance with BS EN 10143:2016 and BS EN 10346:2015
- 0.7mm, 0.9mm and 1.2mm gauge options available to suit common spacing of Purlins
- Maximum sheet lengths up to 12m

Fire Classification

- Class A1 - Reaction to Fire
- Class 1 - BS476 Part 7
- Class O - Current Building Regulations

Standard Fixing Detail

Sheet Ends

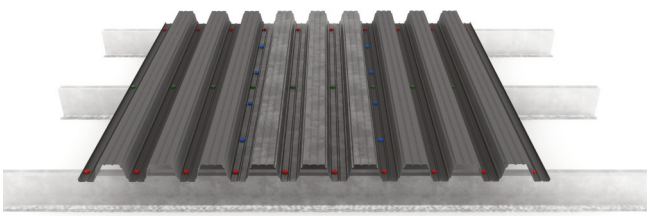
- Every Trough - Main Fix
- End Lap 150mm

Intermediate Fix

- Every Trough - Main Fix

Side Lap

- Side Lap - 450mm Centres
- Side Supports – 450mm Centres



Firth Steels
Innovators in Profiled Steel

SR100+

Section Properties

Nominal Thickness	Available Grades	Depth of Profile	Nminal Weight of Profile		Area of Steel	Top flange in compression		Bottom flange in compression	
						Moment of Capacity	Moment of Inertia	Moment of Capacity	Moment of Inertia
mm	N/mm²	mm	kg/m²	kN/m²	mm²/m	kNm/m	cm⁴/m	kNm/m	cm⁴/m
0.7	S350	100	9.47	0.09	1146	7.46	179.06	8.41	154.0
0.9	S350	100	12.20	0.12	1493	11.62	211.3	10.74	196.2
1.2	S350	100	16.29	0.16	2014	21.77	349.87	17.73	351.6

Section properties are calculated in accordance with Eurocode 3.

Load Tables

Positive Imposed Load (Gravity) kN/m²

Span Type	Gauge (mm)	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 Span	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 Span	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 Span	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 Type	Gauge (mm)	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 Span	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 Span	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 Span	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**	**3.38**	**3.59**	**3.23**	**2.92**	**2.64**

- Tables consider deflection limits of:
  Positive load (Gravity) Span /200
  Negative loads (Uplift) Span /90

- 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
- Figures shaded indicate where design is governed by deflection
- Red figures indicate the sheet lengths are not recommended due to logistical and manual handling issues