

CR38 Roof Profile (Steel)

Product Data Sheet

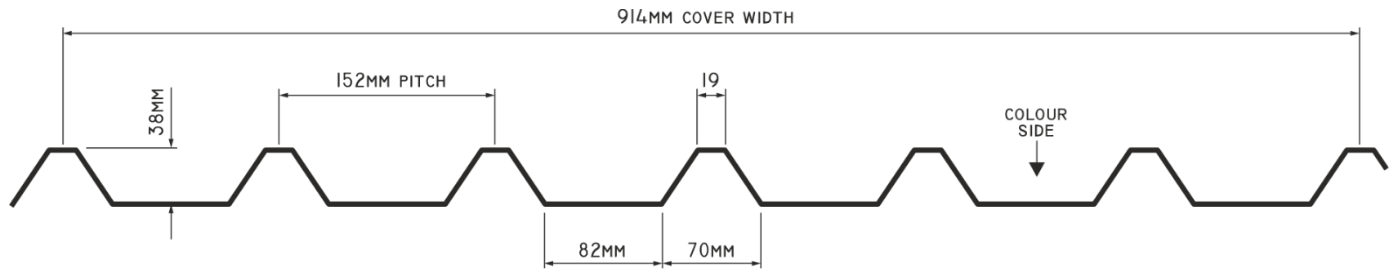


Applications and Suggested Use

CR38 roof profile can be installed on suitable steel or timber purlins with a minimum pitch of 4°, after deflection. This is the strongest of our trapezoidal profiles which makes it useful for use on roofs with greater purlin centres and can be specified for industrial, commercial or agricultural projects.

Suitable for use as a single skin sheet or as the outer weather sheet of a built-up insulated twin-skin system.

Profile Dimensions



Available Sheet Lengths

Sheets are cut to your specified lengths, subject to the following allowable range:

Standard lengths	1.0 m to 10.0 m
Minimum non-standard length*	0.8 m
Maximum non-standard length*	12.0 m**
Maximum unsupported length of sheet	0.3 m

* Non-Standard lengths may incur additional manufacturing, packaging and handling/delivery charges.

** Sheet lengths up to 14.0 m may be possible, depending on full order details. Please discuss with our sales office prior to order placement.

Profile Manufacturing Allowable Tolerances

Length (sheets under 3000 mm long):	+10 mm, -5 mm
Length (sheets over 3000 mm long):	+20 mm, -5 mm
Cover width:	+5 mm, -5 mm
Squareness:	<0.5% of cover width

The above tolerances are in accordance with BS EN 508-1.

Material Options

CR38 roof profile is available in the following types of materials:

Plastisol Coated Steel

Coating type:	200 µm (micron) wear resistant multi-layer organic coating on metallic coated steel substrate.
Appearance:	Traditional embossed leather-grain finish.
Colour range:	Available in full range of standard, extended, premium and accent colours.
Reaction to fire:	Classification C-s2,d0 to BS EN 13501-1.
External roof fire performance:	Classification BROOF(t4) to BS EN 13501-5.
Durability:	Good corrosion resistance with a coating guarantee of up to 25 years (must be applied for).
Sheet thickness options:	0.7 mm and 0.9 mm (0.9 mm in Goosewing Grey only).
Mass per m ² :	0.7 mm = 7.20 kg, 0.9 mm = 9.26 kg.

Granite HDX Coated Steel

Coating type:	55 µm (micron) high performance multi-layer organic coating on metallic coated steel substrate.
Appearance:	Satin finish with slight granular effect.
Colour range:	Selected palette of contemporary and modern colours, including metallics.
Reaction to fire:	Classification A1 to BS EN 13501-1 .
External roof fire performance:	Classification BROOF(t4) to BS EN 13501-5.
Durability:	Excellent corrosion resistance with a coating guarantee of up to 40 years (must be applied for).
Sheet thickness options:	0.7 mm only.
Mass per m ² :	7.52 kg.

Polyester Coated Steel

Coating type:	25 µm (micron) economic multi-layer organic coating on metallic coated steel substrate.
Appearance:	Smooth satin paint finish.
Colour range:	Wide colour range, particularly suited to agricultural use.
Reaction to fire:	Classification A1 to BS EN 13501-1.
External roof fire performance:	Classification BROOF(t4) to BS EN 13501-5.
Durability:	Suitable for less demanding non-aggressive projects.
Sheet thickness options:	0.7 mm only.
Mass per m ² :	7.20 kg.

Plain Galvanised/Aluzinc

Coating type:	Plain metallic coated steel substrate.
Appearance:	Spangled finish.
Reaction to fire:	Classification A1 to BS EN 13501-1.
External roof fire performance:	Classification BROOF(t4) to BS EN 13501-5.
Sheet thickness options:	Various – please contact our sales office for details.

Load/Span Tables

Table 1 Permissible Downward (Gravity) Loads – Working Load (UDL) [kN/m²] – Deflection Limit Span/200

Sheet Thickness	Span Condition	Span (mm)																
		1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600
0.7mm	Single	8.09	6.68	5.62	4.79	4.13	3.59	3.16	2.80	2.40	2.04	1.75	1.51	1.32	1.15	1.01	0.90	0.80
	Double	4.41	3.82	3.35	2.96	2.63	2.36	2.13	1.93	1.76	1.61	1.48	1.37	1.26	1.17	1.09	1.02	0.95
	Multi	5.24	4.55	4.00	3.54	3.16	2.83	2.56	2.33	2.12	1.94	1.79	1.65	1.53	1.42	1.32	1.24	1.16
0.9mm	Single	10.54	8.71	7.32	6.24	5.38	4.68	4.12	3.65	3.13	2.66	2.28	1.97	1.72	1.50	1.32	1.17	1.04
	Double	6.55	5.65	4.93	4.34	3.85	3.44	3.09	2.80	2.54	2.32	2.13	1.96	1.81	1.67	1.56	1.45	1.35
	Multi	7.83	6.77	5.91	5.21	4.64	4.15	3.74	3.38	3.08	2.81	2.58	2.38	2.20	2.04	1.89	1.77	1.65

Table 2 Permissible Upward (Wind Uplift) Loads – Working Load (UDL) [kN/m²] – Deflection Limit Span/150

Sheet Thickness	Span Condition	Span (mm)																
		1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600
0.7mm	Single	7.22	5.97	5.02	4.27	3.69	3.21	2.82	2.50	2.23	2.00	1.81	1.64	1.46	1.28	1.12	1.00	0.88
	Double	4.65	4.04	3.55	3.14	2.80	2.52	2.28	2.07	1.89	1.73	1.59	1.47	1.36	1.26	1.18	1.10	1.03
	Multi	5.51	4.80	4.23	3.75	3.35	3.02	2.73	2.48	2.27	2.08	1.92	1.77	1.64	1.53	1.43	1.33	1.25
0.9mm	Single	9.72	8.03	6.75	5.75	4.96	4.32	3.80	3.36	3.00	2.69	2.43	2.20	1.99	1.75	1.54	1.36	1.21
	Double	6.84	5.91	5.16	4.55	4.04	3.62	3.26	2.95	2.68	2.45	2.25	2.07	1.92	1.78	1.65	1.54	1.44
	Multi	8.15	7.06	6.18	5.46	4.86	4.36	3.93	3.56	3.24	2.97	2.73	2.51	2.33	2.16	2.01	1.87	1.75

The load span tables shown above were calculated for Eurocode design by SCI, in accordance with the applicable sections of BS EN 1993-1-3.

The maximum allowable spans, limited by point load testing to BS EN 14782 Annex B, are 2.2 m for 0.7 mm thick and 2.4 m for 0.9 mm thick.

Curving

CR38 roof profile can be used to form a fully curved roof or alternatively with curved eaves/ridge.

Curving data as follows:

Minimum convex self-curve radius:	45.0 m*
Minimum crimp curve radius:	0.3 m
Maximum length of crimp curved sheet:	6.0m**

* The self-curve radius is meant as a guide only as this figure is dependent on material thickness, sheet length and purlin spacings.

** The maximum length of crimp-curved sheets is dependent on the type of curve.

The CR38 roof profile will be manufactured with a minimum straight leg of 150 mm at each end of the sheet. Please contact our sales office to discuss all curved sheet properties prior to order placement.

Delivery

Our packs of sheets are supplied banded/protected and delivered to site using our own fleet of modern GPS satellite tracked vehicles. Self off-load facility may be an option, depending on order criteria.

Quality and Environmental

All of our products are manufactured using state of the art production facilities to rigorous quality control standards that comply with BS EN ISO 9001, together with an efficient environmental management system that complies with BS EN ISO 14001.



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