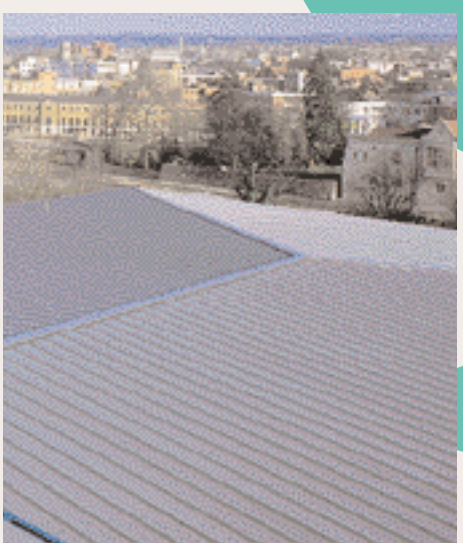
QUEDRON

ROOFING & CLADDING PRODUCTS

ROOFING SYSTEMS



Quedron Roofing Systems

Contents

Quedron Roofing Systems

Introduction:

Quedron roofing systems provide high quality, non-combustible, cost effective solutions, coupled with ease of installation, and lend themselves to almost any roof application.

This brochure deals extensively with trapezoidal profiles, for use with roof pitches greater than or equal to 5°. If a design pitch is less than 5° we recommend the use of the QSF500 Secret Fix system (for steel), which has been specifically designed for such applications. Refer to the QSF500 brochure for further details.

The load/span tables are provided to assist in the selection of the most suitable profile. A full range of plastisol and PVDF colours are available for the trapezoidal roof profiles, but there are a number which are identified as particularly suitable for roof applications. These tend to be the lighter colours, which are less subject to fade and reduce the movement of the sheet caused by temperature changes. This is also true for vertical cladding, but the aesthetic criteria tend to take precedence with the choice of colour. For a statement on life expectancy on a particular product, in a known environment, please refer to the life expectancy chart enclosed.

For curved eaves and ridge details, all the trapezoidal profiles can be curved and 'barrel vault' self curving roofs may be accommodated subject to the profile type and curve radius.

The length of the trapezoidal profiles are only limited by the practical problems of handling and transportation. It must be noted, however, that these limitations can be overcome if the on-site rolling capabilities of the QSF500 Secret Fix system (for steel), are employed.

All Quedron profiles are handed with specific sidelap details. Therefore, it is imperative that these are identified and installed correctly.

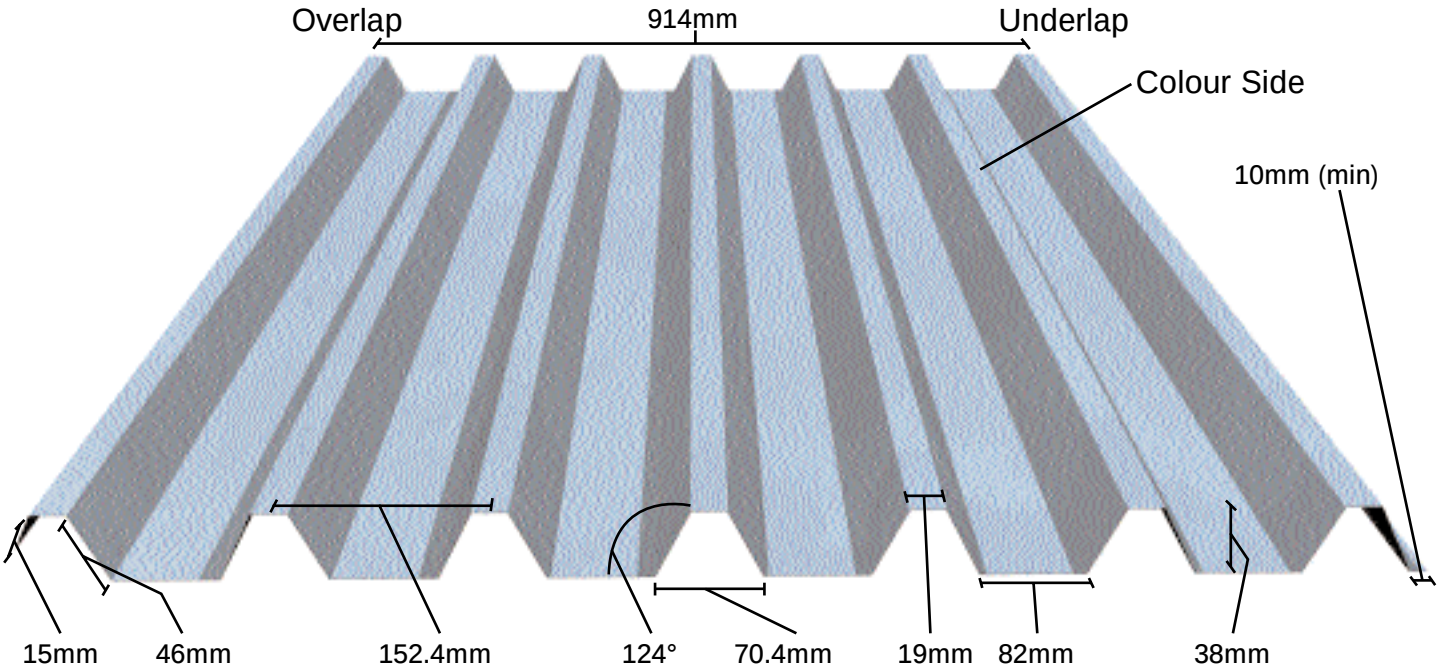
Rooflights are available to match, or complement, all profiles in either translucent sheets, or barrel vault type systems.

The trapezoidal roof profiles illustrated in this brochure may also be used for vertical applications, however, the vertical profiles found in the Cladding Systems brochure cannot be used for roof applications.

The information necessary for specifying and installing the trapezoidal profiles is included in this brochure. The QSF500 Secret Fix system has its own unique requirement. Please see the Quedron QSF500 Secret Fix Brochure.

Quedron Roofing Systems

WA6 - Steel



Dimension Details		*Weight per Linear Metre*	
Cover Width	914 mm	0.5mm	4.823 kgs
Profile Pitch	152.4 mm	0.7mm	6.725 kgs
Profile Depth	38 mm	0.9mm	8.646 kgs
Crown Width	19 mm		
Valley Width	82 mm		
Rib Width	70.4 mm		
Web	46 mm		

Underlap
(Right as shown above) 10 mm (Minimum)

Overlap
(Left as shown above) 15 mm

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Deflection < L/200

t(mm)	Mcap +ve (kNm/m)	Mcap -ve (kNm/m)	Ieff (mm4/m)	Rcap (kN/m)
0.9	2.06	2.69	23.662	42.86
0.7	1.61	1.83	18.409	27.55
0.5	1.13	1.11	13.146	15.19

Single Span Case - Permissible Working +ve Loads

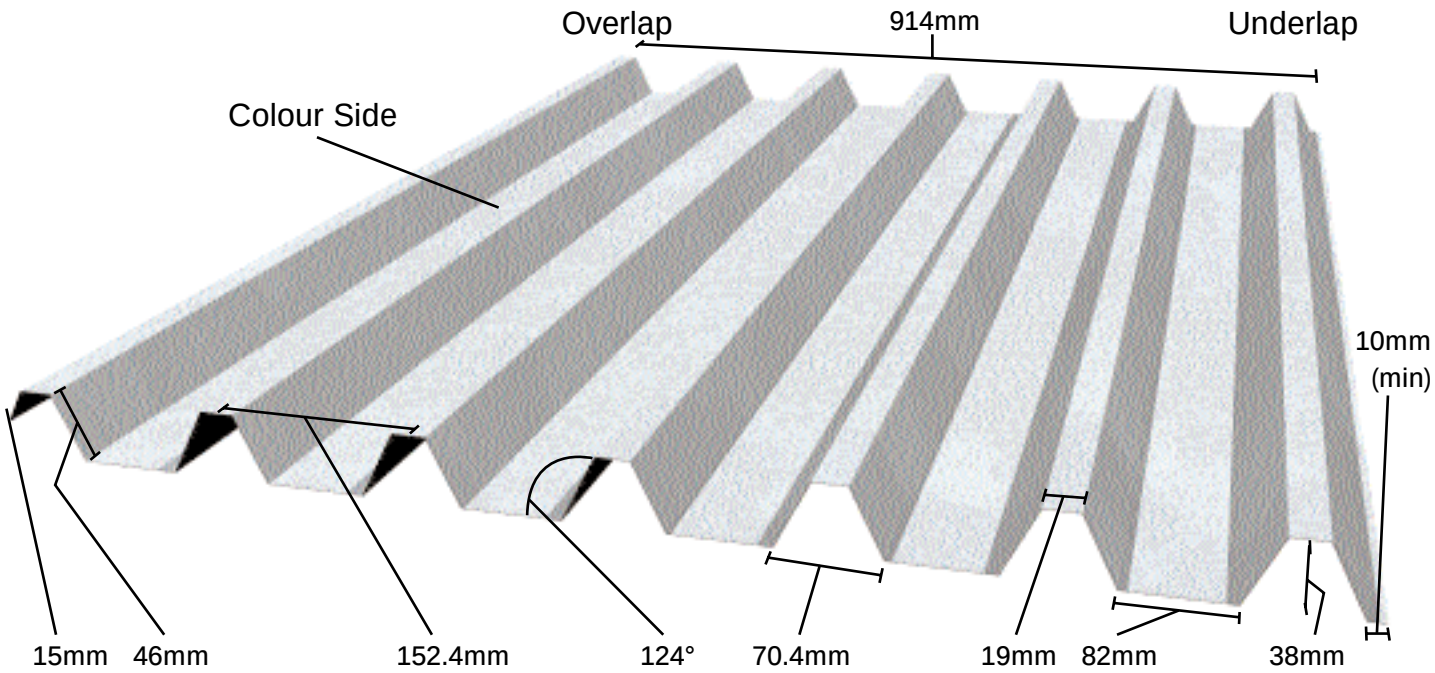
Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.5mm	Moment	6.03	4.98	4.19	3.57	3.07	2.68	2.35	2.09	1.86	1.67	1.51	1.37	1.25	1.14	1.05	0.96	0.89
	Inertia	10.35	7.78	5.99	4.71	3.77	3.07	2.53	2.11	1.77	1.51	1.29	1.12	0.97	0.85	0.75	0.66	0.59
	Reaction	20.25	18.41	16.88	15.58	14.47	13.50	12.66	11.91	11.25	10.66	10.13	9.64	9.21	8.81	8.44	8.10	7.79
	Limiting	6.03	4.98	4.19	3.57	3.07	2.68	2.35	2.09	1.77	1.51	1.29	1.12	0.97	0.85	0.75	0.66	0.59
0.7mm	Moment	8.59	7.10	5.96	5.08	4.38	3.82	3.35	2.97	2.65	2.38	2.15	1.95	1.77	1.62	1.49	1.37	1.27
	Inertia	14.49	10.89	8.39	6.60	5.28	4.29	3.54	2.95	2.48	2.11	1.81	1.56	1.36	1.19	1.05	0.93	0.82
	Reaction	36.73	33.39	30.61	28.26	26.24	24.49	22.96	21.61	20.41	19.33	18.37	17.49	16.70	15.97	15.31	14.69	14.13
	Limiting	8.59	7.10	5.96	5.08	4.38	3.82	3.35	2.95	2.48	2.11	1.81	1.56	1.36	1.19	1.05	0.93	0.82
0.9mm	Moment	10.99	9.08	7.63	6.50	5.61	4.88	4.29	3.80	3.39	3.04	2.75	2.49	2.27	2.08	1.91	1.76	1.63
	Inertia	18.63	13.99	10.78	8.48	6.79	5.52	4.55	3.79	3.19	2.72	2.33	2.01	1.75	1.53	1.35	1.19	1.06
	Reaction	57.15	51.95	47.62	43.96	40.82	38.10	35.72	33.62	31.75	30.08	28.57	27.21	25.98	24.85	23.81	22.86	21.98
	Limiting	10.99	9.08	7.63	6.50	5.61	4.88	4.29	3.79	3.19	2.72	2.33	2.01	1.75	1.53	1.35	1.19	1.06

Double Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.5mm	Moment	5.92	4.89	4.11	3.50	3.02	2.63	2.31	2.05	1.83	1.64	1.48	1.34	1.22	1.12	1.03	0.95	0.88
	Inertia	24.93	18.73	14.43	11.35	9.08	7.39	6.09	5.07	4.27	3.63	3.12	2.69	2.34	2.05	1.80	1.60	1.42
	Reaction	12.66	11.51	10.55	9.74	9.04	8.44	7.91	7.45	7.03	6.66	6.33	6.03	5.75	5.50	5.27	5.06	4.87
	Interaction	4.75	4.09	3.55	3.12	2.76	2.46	2.21	1.99	1.81	1.65	1.51	1.38	1.28	1.18	1.09	1.02	0.95
	Limiting	4.75	4.09	3.55	3.12	2.76	2.46	2.21	1.99	1.81	1.64	1.48	1.34	1.22	1.12	1.03	0.95	0.88
0.7mm	Moment	9.76	8.07	6.78	5.78	4.98	4.34	3.81	3.38	3.01	2.70	2.44	2.21	2.02	1.84	1.69	1.56	1.44
	Inertia	34.91	26.23	20.20	15.89	12.72	10.34	8.52	7.11	5.99	5.09	4.36	3.77	3.28	2.87	2.53	2.23	1.99
	Reaction	22.96	20.87	19.13	17.66	16.40	15.31	14.35	13.50	12.75	12.08	11.48	10.93	10.44	9.98	9.57	9.18	8.83
	Interaction	8.47	7.27	6.31	5.53	4.89	4.36	3.91	3.52	3.19	2.91	2.66	2.44	2.25	2.08	1.93	1.79	1.67
	Limiting	8.47	7.27	6.31	5.53	4.89	4.34	3.81	3.38	3.01	2.70	2.44	2.21	2.02	1.84	1.69	1.56	1.44
0.9mm	Moment	14.35	11.86	9.96	8.49	7.32	6.38	5.60	4.96	4.43	3.97	3.59	3.25	2.96	2.71	2.49	2.30	2.12
	Inertia	44.87	33.71	25.97	20.42	16.35	13.29	10.95	9.13	7.69	6.54	5.61	4.84	4.21	3.69	3.25	2.87	2.55
	Reaction	35.72	32.47	29.76	27.47	25.51	23.81	22.32	21.01	19.84	18.80	17.86	17.01	16.23	15.53	14.88	14.29	13.74
	Interaction	12.73	10.91	9.46	8.28	7.32	6.51	5.83	5.25	4.76	4.33	3.96	3.63	3.35	3.09	2.87	2.66	2.48
	Limiting	12.73	10.91	9.46	8.28	7.32	6.38	5.60	4.96	4.43	3.97	3.59	3.25	2.96	2.71	2.49	2.30	2.12

Quedron Roofing Systems

WA6 - Aluminium



Dimension Details		*Weight per Linear Metre*	
Cover Width	914 mm	0.7mm Mill Finish	2.338 kgs
Profile Pitch	152.4 mm	0.9mm Mill Finish	3.006 kgs
Profile Depth	38 mm		
Crown Width	19 mm	0.7mm One Side Coated	2.363 kgs
Valley Width	82 mm	0.9mm One Side Coated	3.039 kgs
Rib Width	70.4 mm		
Web	46 mm		
Underlap			
(Right as shown above)	10 mm (Minimum)		
Overlap			
(Left as shown above)	15 mm		

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Deflection < L/200

t(mm)	Mcap +ve (kNm/m)	Mcap -ve (kNm/m)	Ieff (mm4/m)	Rcap (kN/m)
0.9	1.97	1.95	23.662	24.01
0.7	1.35	1.36	17.917	15.43

Single Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.7mm	Moment	7.20	5.95	5.00	4.26	3.67	3.20	2.81	2.49	2.22	1.99	1.80	1.63	1.49	1.36	1.25	1.15	1.07
	Inertia	4.75	3.57	2.75	2.16	1.73	1.41	1.16	0.97	0.81	0.69	0.59	0.51	0.45	0.39	0.34	0.30	0.27
	Reaction	20.57	18.70	17.14	15.83	14.70	13.72	12.86	12.10	11.43	10.83	10.29	9.80	9.35	8.94	8.57	8.23	7.91
	Limiting	4.75	3.57	2.75	2.16	1.73	1.41	1.16	0.97	0.81	0.69	0.59	0.51	0.45	0.39	0.34	0.30	0.27
0.9mm	Moment	10.51	8.68	7.30	6.22	5.36	4.67	4.10	3.64	3.24	2.91	2.63	2.38	2.17	1.99	1.82	1.68	1.55
	Inertia	6.27	4.71	3.63	2.85	2.28	1.86	1.53	1.28	1.08	0.91	0.78	0.68	0.59	0.52	0.45	0.40	0.36
	Reaction	32.01	29.10	26.68	24.63	22.87	21.34	20.01	18.83	17.79	16.85	16.01	15.24	14.55	13.92	13.34	12.81	12.31
	Limiting	6.27	4.71	3.63	2.85	2.28	1.86	1.53	1.28	1.08	0.91	0.78	0.68	0.59	0.52	0.45	0.40	0.36

Double Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.7mm	Moment	7.25	5.99	5.04	4.29	3.70	3.22	2.83	2.51	2.24	2.01	1.81	1.64	1.50	1.37	1.26	1.16	1.07
	Inertia	11.44	8.59	6.62	5.21	4.17	3.39	2.79	2.33	1.96	1.67	1.43	1.23	1.07	0.94	0.83	0.73	0.65
	Reaction	12.86	11.69	10.72	9.89	9.18	8.57	8.04	7.56	7.14	6.77	6.43	6.12	5.84	5.59	5.36	5.14	4.95
	Interaction	8.47	7.27	6.31	5.53	4.89	4.36	3.91	3.52	3.19	2.91	2.66	2.44	2.25	2.08	1.93	1.79	1.67
	Limiting	7.25	5.99	5.04	4.29	3.70	3.22	2.79	2.33	1.96	1.67	1.43	1.23	1.07	0.94	0.83	0.73	0.65
0.9mm	Moment	10.40	8.60	7.22	6.15	5.31	4.62	4.06	3.60	3.21	2.88	2.60	2.36	2.15	1.97	1.81	1.66	1.54
	Inertia	15.10	11.35	8.74	6.87	5.50	4.47	3.69	3.07	2.59	2.20	1.89	1.63	1.42	1.24	1.09	0.97	0.86
	Reaction	20.01	18.19	16.67	15.39	14.29	13.34	12.51	11.77	11.12	10.53	10.00	9.53	9.09	8.70	8.34	8.00	7.70
	Interaction	12.73	10.91	9.46	8.28	7.32	6.51	5.83	5.25	4.76	4.33	3.96	3.63	3.35	3.09	2.87	2.66	2.48
	Limiting	10.40	8.60	7.22	6.15	5.31	4.47	3.69	3.07	2.59	2.20	1.89	1.63	1.42	1.24	1.09	0.97	0.86

Deflection < L/100

t(mm)	Mcap +ve (kNm/m)	Mcap -ve (kNm/m)	Ieff (mm4/m)	Rcap (kN/m)
0.9	1.97	1.95	23.662	24.01
0.7	1.35	1.36	17.917	15.43

Single Span Case - Permissible Working +ve Loads

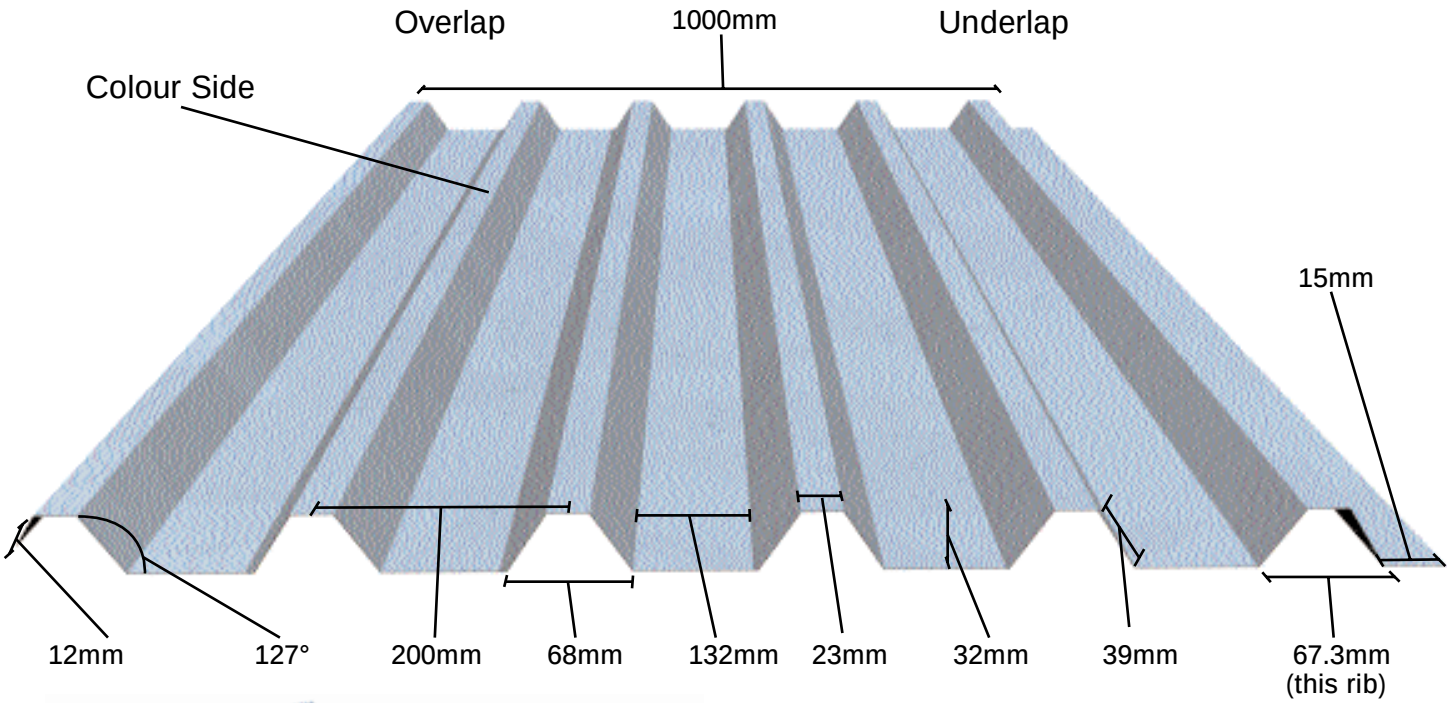
Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.7mm	Moment	7.20	5.95	5.00	4.26	3.67	3.20	2.81	2.49	2.22	1.99	1.80	1.63	1.49	1.36	1.25	1.15	1.07
	Inertia	9.49	7.13	5.49	4.32	3.46	2.81	2.32	1.93	1.63	1.38	1.19	1.03	0.89	0.78	0.69	0.61	0.54
	Reaction	20.57	18.70	17.14	15.83	14.70	13.72	12.86	12.10	11.43	10.83	10.29	9.80	9.35	8.94	8.57	8.23	7.91
	Limiting	7.20	5.95	5.00	4.26	3.46	2.81	2.32	1.93	1.63	1.38	1.19	1.03	0.89	0.78	0.69	0.61	0.54
0.9mm	Moment	10.51	8.68	7.30	6.22	5.36	4.67	4.10	3.64	3.24	2.91	2.63	2.38	2.17	1.99	1.82	1.68	1.55
	Inertia	12.54	9.42	7.26	5.71	4.57	3.72	3.06	2.55	2.15	1.83	1.57	1.35	1.18	1.03	0.91	0.80	0.71
	Reaction	32.01	29.10	26.68	24.63	22.87	21.34	20.01	18.83	17.79	16.85	16.01	15.24	14.55	13.92	13.34	12.81	12.31
	Limiting	10.51	8.68	7.26	5.71	4.57	3.72	3.06	2.55	2.15	1.83	1.57	1.35	1.18	1.03	0.91	0.80	0.71

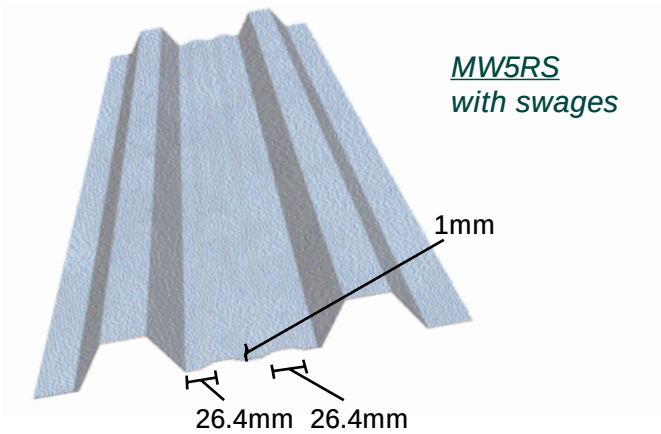
Double Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.7mm	Moment	7.25	5.99	5.04	4.29	3.70	3.22	2.83	2.51	2.24	2.01	1.81	1.64	1.50	1.37	1.26	1.16	1.07
	Inertia	22.87	17.18	13.24	10.41	8.33	6.78	5.58	4.66	3.92	3.33	2.86	2.47	2.15	1.88	1.65	1.46	1.30
	Reaction	12.86	11.69	10.72	9.89	9.18	8.57	8.04	7.56	7.14	6.77	6.43	6.12	5.84	5.59	5.36	5.14	4.95
	Interaction	8.47	7.27	6.31	5.53	4.89	4.36	3.91	3.52	3.19	2.91	2.66	2.44	2.25	2.08	1.93	1.79	1.67
	Limiting	7.25	5.99	5.04	4.29	3.70	3.22	2.83	2.51	2.24	2.01	1.81	1.64	1.50	1.37	1.26	1.16	1.07
0.9mm	Moment	10.40	8.60	7.22	6.15	5.31	4.62	4.06	3.60	3.21	2.88	2.60	2.36	2.15	1.97	1.81	1.66	1.54
	Inertia	30.20	22.69	17.48	13.75	11.01	8.95	7.37	6.15	5.18	4.40	3.78	3.26	2.84	2.48	2.18	1.93	1.72
	Reaction	20.01	18.19	16.67	15.39	14.29	13.34	12.51	11.77	11.12	10.53	10.00	9.53	9.09	8.70	8.34	8.00	7.70
	Interaction	12.73	10.91	9.46	8.28	7.32	6.51	5.83	5.25	4.76	4.33	3.96	3.63	3.35	3.09	2.87	2.66	2.48
	Limiting	10.40	8.60	7.22	6.15	5.31	4.62	4.06	3.60	3.21	2.88	2.60	2.36	2.15	1.97	1.81	1.66	1.54

Quedron Roofing Systems

MW5R - Steel





MW5RS
with swages

Dimension Details

Cover Width	1000 mm
Profile Pitch	200 mm
Profile Depth	32 mm
Crown Width	23 mm
Valley Width	132 mm
Rib Width	68 mm
Web	39 mm

Overlap
(Left as shown above) 12 mm

Underlap
(Right as shown above) 15 mm (Minimum)

Weight per Linear Metre

0.5mm	4.823 kgs
0.7mm	6.753 kgs
0.9mm	8.646 kgs

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Sales **t**: 01242 241222 Sales **f**: 01242 584934 Sales **e**: profilesales@quedron.co.uk

Deflection < L/200

t(mm)	Mcap +ve (kNm/m)	Mcap -ve (kNm/m)	Ieff (mm4/m)	Rcap (kN/m)
0.9	2.04	2.59	21.17	45.79
0.7	1.59	1.73	16.466	29.37
0.5	1.09	1.02	11.37	16.15

Single Span Case - Permissible Working +ve Loads

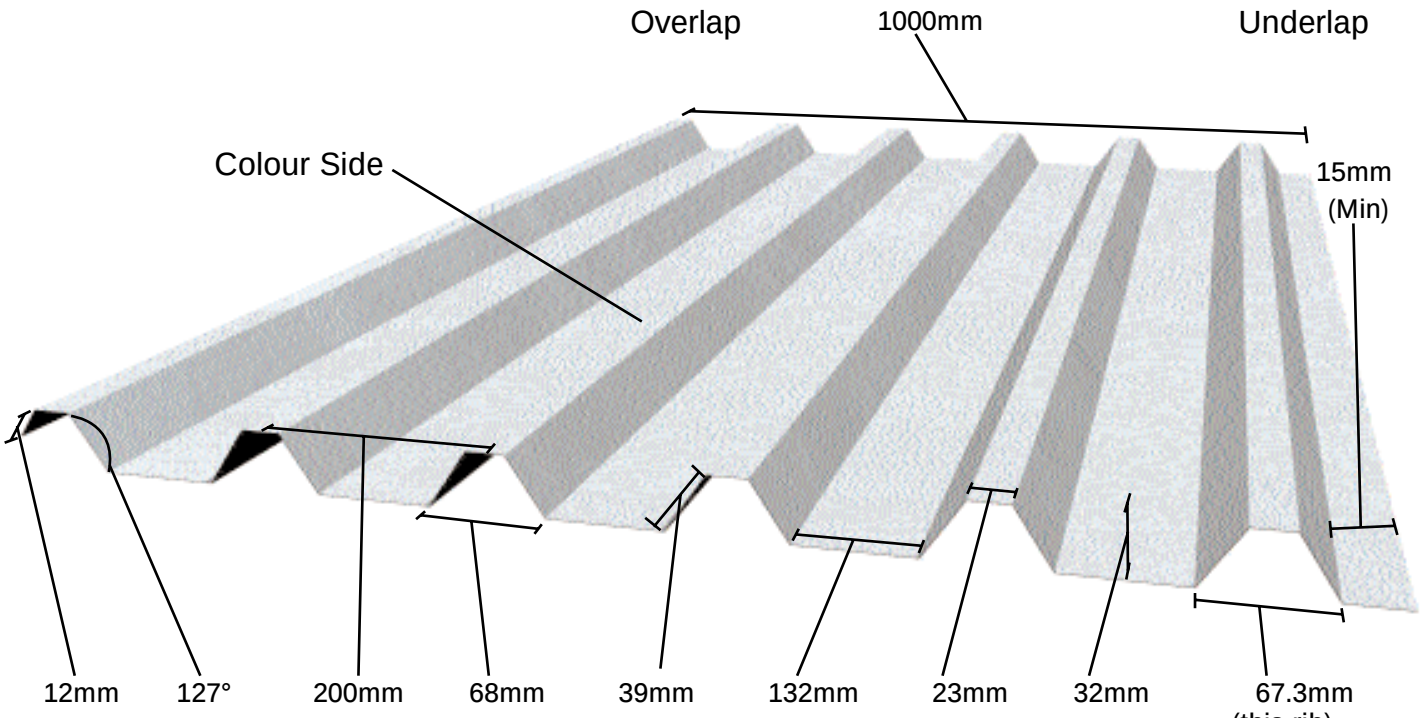
Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.5mm	Moment	5.81	4.80	4.04	3.44	2.97	2.58	2.27	2.01	1.79	1.61	1.45	1.32	1.20	1.10	1.01	0.93	0.86
	Inertia	8.95	6.72	5.18	4.07	3.26	2.65	2.19	1.82	1.53	1.30	1.12	0.97	0.84	0.74	0.65	0.57	0.51
	Reaction	21.53	19.58	17.94	16.56	15.38	14.36	13.46	12.67	11.96	11.33	10.77	10.25	9.79	9.36	8.97	8.61	8.28
	Limiting	5.81	4.80	4.04	3.44	2.97	2.58	2.19	1.82	1.53	1.30	1.12	0.97	0.84	0.74	0.65	0.57	0.51
0.7mm	Moment	8.48	7.01	5.89	5.02	4.33	3.77	3.31	2.93	2.62	2.35	2.12	1.92	1.75	1.60	1.47	1.36	1.25
	Inertia	12.96	9.74	7.50	5.90	4.72	3.84	3.16	2.64	2.22	1.89	1.62	1.40	1.22	1.07	0.94	0.83	0.74
	Reaction	39.16	35.60	32.63	30.12	27.97	26.11	24.48	23.04	21.76	20.61	19.58	18.65	17.80	17.03	16.32	15.66	15.06
	Limiting	8.48	7.01	5.89	5.02	4.33	3.77	3.16	2.64	2.22	1.89	1.62	1.40	1.22	1.07	0.94	0.83	0.74
0.9mm	Moment	10.88	8.99	7.56	6.44	5.55	4.84	4.25	3.76	3.36	3.01	2.72	2.47	2.25	2.06	1.89	1.74	1.61
	Inertia	16.67	12.52	9.64	7.59	6.07	4.94	4.07	3.39	2.86	2.43	2.08	1.80	1.57	1.37	1.21	1.07	0.95
	Reaction	61.05	55.50	50.88	46.96	43.61	40.70	38.16	35.91	33.92	32.13	30.53	29.07	27.75	26.54	25.44	24.42	23.48
	Limiting	10.88	8.99	7.56	6.44	5.55	4.84	4.07	3.39	2.86	2.43	2.08	1.80	1.57	1.37	1.21	1.07	0.95

Double Span Case - Permissible Working +ve Loads

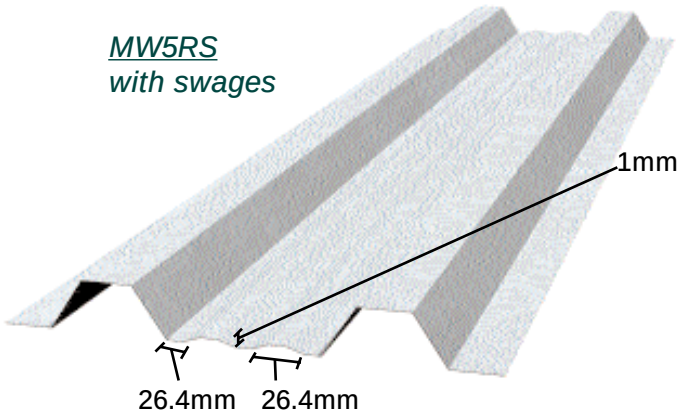
Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.5mm	Moment	5.44	4.50	3.78	3.22	2.78	2.42	2.13	1.88	1.68	1.51	1.36	1.23	1.12	1.03	0.94	0.87	0.80
	Inertia	21.56	16.20	12.48	9.81	7.86	6.39	5.26	4.39	3.70	3.14	2.70	2.33	2.02	1.77	1.56	1.38	1.23
	Reaction	13.46	12.23	11.22	10.35	9.61	8.97	8.41	7.92	7.48	7.08	6.73	6.41	6.12	5.85	5.61	5.38	5.18
	Interaction	4.75	4.09	3.55	3.12	2.76	2.46	2.21	1.99	1.81	1.65	1.51	1.38	1.28	1.18	1.09	1.02	0.95
	Limiting	4.75	4.09	3.55	3.12	2.76	2.42	2.13	1.88	1.68	1.51	1.36	1.23	1.12	1.03	0.94	0.87	0.80
0.7mm	Moment	9.23	7.63	6.41	5.46	4.71	4.10	3.60	3.19	2.85	2.56	2.31	2.09	1.91	1.74	1.60	1.48	1.36
	Inertia	31.22	23.46	18.07	14.21	11.38	9.25	7.62	6.36	5.35	4.55	3.90	3.37	2.93	2.57	2.26	2.00	1.78
	Reaction	24.48	22.25	20.40	18.83	17.48	16.32	15.30	14.40	13.60	12.88	12.24	11.65	11.13	10.64	10.20	9.79	9.41
	Interaction	8.47	7.27	6.31	5.53	4.89	4.36	3.91	3.52	3.19	2.91	2.66	2.44	2.25	2.08	1.93	1.79	1.67
	Limiting	8.47	7.27	6.31	5.46	4.71	4.10	3.60	3.19	2.85	2.56	2.31	2.09	1.91	1.74	1.60	1.48	1.36
0.9mm	Moment	13.81	11.42	9.59	8.17	7.05	6.14	5.40	4.78	4.26	3.83	3.45	3.13	2.85	2.61	2.40	2.21	2.04
	Inertia	40.14	30.16	23.23	18.27	14.63	11.89	9.80	8.17	6.88	5.85	5.02	4.33	3.77	3.30	2.90	2.57	2.28
	Reaction	38.16	34.69	31.80	29.35	27.26	25.44	23.85	22.45	21.20	20.08	19.08	18.17	17.34	16.59	15.90	15.26	14.68
	Interaction	12.73	10.91	9.46	8.28	7.32	6.51	5.83	5.25	4.76	4.33	3.96	3.63	3.35	3.09	2.87	2.66	2.48
	Limiting	12.73	10.91	9.46	8.17	7.05	6.14	5.40	4.78	4.26	3.83	3.45	3.13	2.85	2.61	2.40	2.21	2.04

Quedron Roofing Systems

MW5R - Aluminium



MW5RS
with swages



Dimension Details

Cover Width	1000 mm
Profile Pitch	200 mm
Profile Depth	32 mm
Crown Width	23 mm
Valley Width	132 mm
Rib Width	68 mm
Web	39 mm
Overlap	
(Left as shown above)	12 mm
Underlap	
(Right as shown above)	15 mm (Minimum)

Weight per Linear Metre

0.7mm Mill Finish	2.338 kgs
0.9mm Mill Finish	3.006 kgs
0.7mm One Side Coated	2.363 kgs
0.9mm One Side Coated	3.039 kgs

Quedron (2001) Ltd. Runnings Road, Kingsditch Trading Estate, Cheltenham, Gloucestershire. GL51 9NQ
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Deflection < L/200

t(mm)	Mcap +ve (kNm/m)	Mcap -ve (kNm/m)	Ieff (mm4/m)	Rcap (kN/m)
0.9	1.9	1.81	20.729	25.65
0.7	1.29	1.24	15.207	16.45

Single Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.7mm	Moment	6.88	5.69	4.78	4.07	3.51	3.06	2.69	2.38	2.12	1.91	1.72	1.56	1.42	1.30	1.19	1.10	1.02
	Inertia	4.03	3.03	2.33	1.83	1.47	1.19	0.98	0.82	0.69	0.59	0.50	0.44	0.38	0.33	0.29	0.26	0.23
	Reaction	21.93	19.94	18.28	16.87	15.67	14.62	13.71	12.90	12.19	11.54	10.97	10.44	9.97	9.54	9.14	8.77	8.44
	Limiting	4.03	3.03	2.33	1.83	1.47	1.19	0.98	0.82	0.69	0.59	0.50	0.44	0.38	0.33	0.29	0.26	0.23
0.9mm	Moment	10.13	8.37	7.04	6.00	5.17	4.50	3.96	3.51	3.13	2.81	2.53	2.30	2.09	1.92	1.76	1.62	1.50
	Inertia	5.49	16.09	3.18	2.50	2.00	1.63	1.34	1.12	0.94	0.80	0.69	0.59	0.52	0.45	0.40	0.35	0.31
	Reaction	34.20	31.09	28.50	26.31	24.43	22.80	21.38	20.12	19.00	18.00	17.10	16.29	15.55	14.87	14.25	13.68	13.15
	Limiting	5.49	8.37	3.18	2.50	2.00	1.63	1.34	1.12	0.94	0.80	0.69	0.59	0.52	0.45	0.40	0.35	0.31

Double Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.7mm	Moment	6.61	5.47	4.59	3.91	3.37	2.94	2.58	2.29	2.04	1.83	1.65	1.50	1.37	1.25	1.15	1.06	0.98
	Inertia	9.71	7.29	5.62	4.42	3.54	2.88	2.37	1.98	1.66	1.42	1.21	1.05	0.91	0.80	0.70	0.62	0.55
	Reaction	13.71	12.46	11.42	10.54	9.79	9.14	8.57	8.06	7.62	7.21	6.85	6.53	6.23	5.96	5.71	5.48	5.27
	Interaction	8.47	7.27	6.31	5.53	4.89	4.36	3.91	3.52	3.19	2.91	2.66	2.44	2.25	2.08	1.93	1.79	1.67
	Limiting	6.61	5.47	4.59	3.91	3.37	2.88	2.37	1.98	1.66	1.42	1.21	1.05	0.91	0.80	0.70	0.62	0.55
0.9mm	Moment	9.65	7.98	6.70	5.71	4.93	4.29	3.77	3.34	2.98	2.67	2.41	2.19	1.99	1.82	1.68	1.54	1.43
	Inertia	13.23	9.94	7.66	6.02	4.82	3.92	3.23	2.69	2.27	1.93	1.65	1.43	1.24	1.09	0.96	0.85	0.75
	Reaction	21.38	19.43	17.81	16.44	15.27	14.25	13.36	12.57	11.88	11.25	10.69	10.18	9.72	9.29	8.91	8.55	8.22
	Interaction	12.73	10.91	9.46	8.28	7.32	6.51	5.83	5.25	4.76	4.33	3.96	3.63	3.35	3.09	2.87	2.66	2.48
	Limiting	9.65	7.98	6.70	5.71	4.82	3.92	3.23	2.69	2.27	1.93	1.65	1.43	1.24	1.09	0.96	0.85	0.75

Deflection < L/100

t(mm)	Mcap +ve (kNm/m)	Mcap -ve (kNm/m)	Ieff (mm4/m)	Rcap (kN/m)
0.9	1.9	1.81	20.729	25.65
0.7	1.29	1.24	15.207	16.45

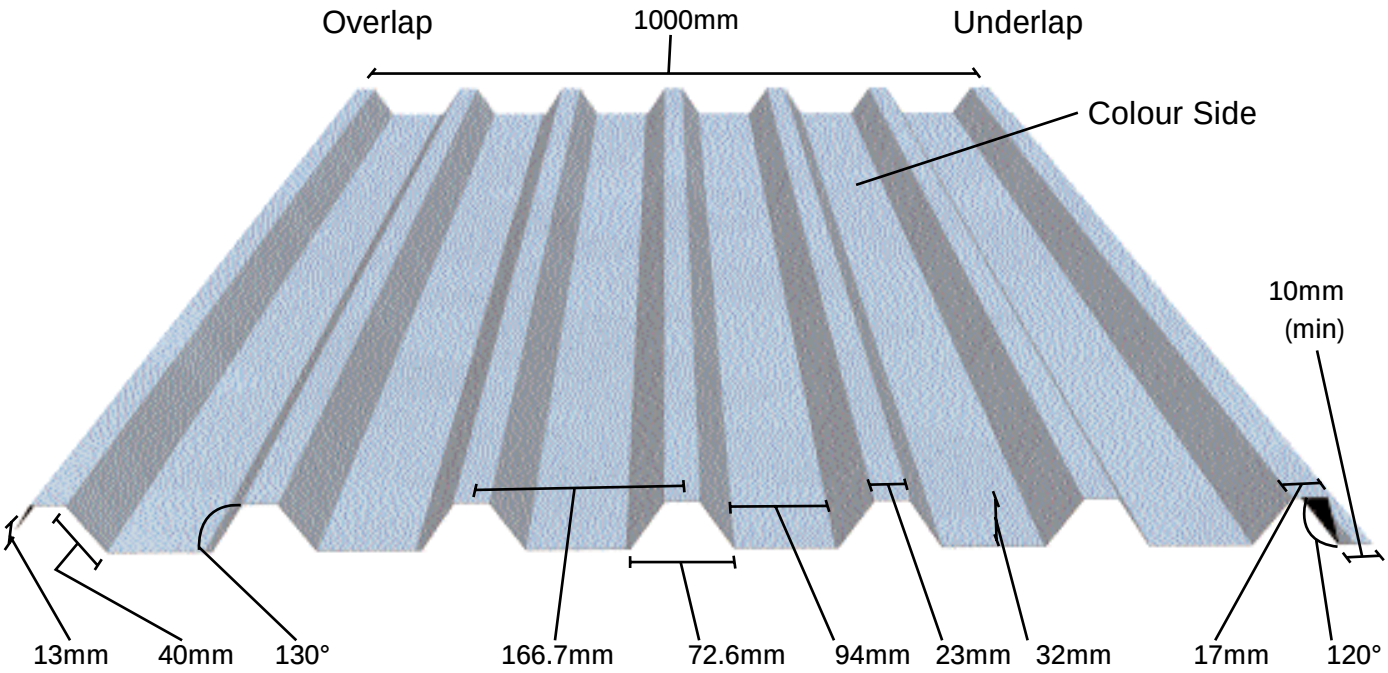
Single Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.7mm	Moment	6.88	5.69	4.78	4.07	3.51	3.06	2.69	2.38	2.12	1.91	1.72	1.56	1.42	1.30	1.19	1.10	1.02
	Inertia	8.06	6.05	4.66	3.67	2.94	2.39	1.97	1.64	1.38	1.17	1.01	0.87	0.76	0.66	0.58	0.52	0.46
	Reaction	21.93	19.94	18.28	16.87	15.67	14.62	13.71	12.90	12.19	11.54	10.97	10.44	9.97	9.54	9.14	8.77	8.44
	Limiting	6.88	5.69	4.66	3.67	2.94	2.39	1.97	1.64	1.38	1.17	1.01	0.87	0.76	0.66	0.58	0.52	0.46
0.9mm	Moment	10.13	8.37	7.04	6.00	5.17	4.50	3.96	3.51	3.13	2.81	2.53	2.30	2.09	1.92	1.76	1.62	1.50
	Inertia	10.98	32.17	6.36	5.00	4.00	3.25	2.68	2.24	1.88	1.60	1.37	1.19	1.03	0.90	0.79	0.70	0.62
	Reaction	34.20	31.09	28.50	26.31	24.43	22.80	21.38	20.12	19.00	18.00	17.10	16.29	15.55	14.87	14.25	13.68	13.15
	Limiting	10.13	8.37	6.36	5.00	4.00	3.25	2.68	2.24	1.88	1.60	1.37	1.19	1.03	0.90	0.79	0.70	0.62

Double Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.7mm	Moment	6.61	5.47	4.59	3.91	3.37	2.94	2.58	2.29	2.04	1.83	1.65	1.50	1.37	1.25	1.15	1.06	0.98
	Inertia	19.41	14.58	11.23	8.84	7.07	5.75	4.74	3.95	3.33	2.83	2.43	2.10	1.82	1.60	1.40	1.24	1.10
	Reaction	13.71	12.46	11.42	10.54	9.79	9.14	8.57	8.06	7.62	7.21	6.85	6.53	6.23	5.96	5.71	5.48	5.27
	Interaction	8.47	7.27	6.31	5.53	4.89	4.36	3.91	3.52	3.19	2.91	2.66	2.44	2.25	2.08	1.93	1.79	1.67
	Limiting	6.61	5.47	4.59	3.91	3.37	2.94	2.58	2.29	2.04	1.83	1.65	1.50	1.37	1.25	1.15	1.06	0.98
0.9mm	Moment	9.65	7.98	6.70	5.71	4.93	4.29	3.77	3.34	2.98	2.67	2.41	2.19	1.99	1.82	1.68	1.54	1.43
	Inertia	26.46	19.88	15.31	12.04	9.64	7.84	6.46	5.39	4.54	3.86	3.31	2.86	2.49	2.17	1.91	1.69	1.51
	Reaction	21.38	19.43	17.81	16.44	15.27	14.25	13.36	12.57	11.88	11.25	10.69	10.18	9.72	9.29	8.91	8.55	8.22
	Interaction	12.73	10.91	9.46	8.28	7.32	6.51	5.83	5.25	4.76	4.33	3.96	3.63	3.35	3.09	2.87	2.66	2.48
	Limiting	9.65	7.98	6.70	5.71	4.93	4.29	3.77	3.34	2.98	2.67	2.41	2.19	1.99	1.82	1.68	1.54	1.43

1000/32R - Steel



Dimension Details

Cover Width	1000 mm
Profile Pitch	166.7 mm
Profile Depth	32 mm
Crown Width	23 mm
Valley Width	94 mm
Rib Width	72.6 mm
Web	40 mm

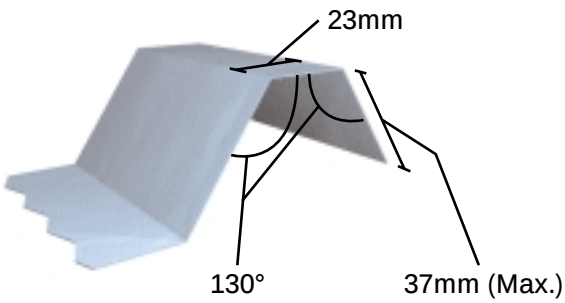
Underlap	
(Right as shown above)	10 mm (Minimum)
Overlap	
(Left as shown above)	13 mm (Minimum)
"Special" Underlap	
(as shown right)	37 mm (Minimum)

Tolerance on all dimensions as per European Standard B.S.E.N. 508-1

Weight per Linear Metre

0.5mm	4.823 kgs
0.7mm	6.753kgs
0.9mm	8.682 kgs

"Special" Underlap Detail



Quedron (2001) Ltd. Runnings Road, Kingsditch Trading Estate, Cheltenham, Gloucestershire. GL51 9NQ
Sales **t**: 01242 241222 Sales **f**: 01242 584934 Sales **e**: profilesales@quedron.co.uk

Deflection < L/200

t(mm)	Mcap +ve (kNm/m)	Mcap -ve (kNm/m)	Ieff (mm4/m)	Rcap (kN/m)
0.9	1.82	2.29	17.99	41.21
0.7	1.42	1.55	13.99	26.45
0.5	0.97	0.93	9.69	14.56

Single Span Case - Permissible Working +ve Loads

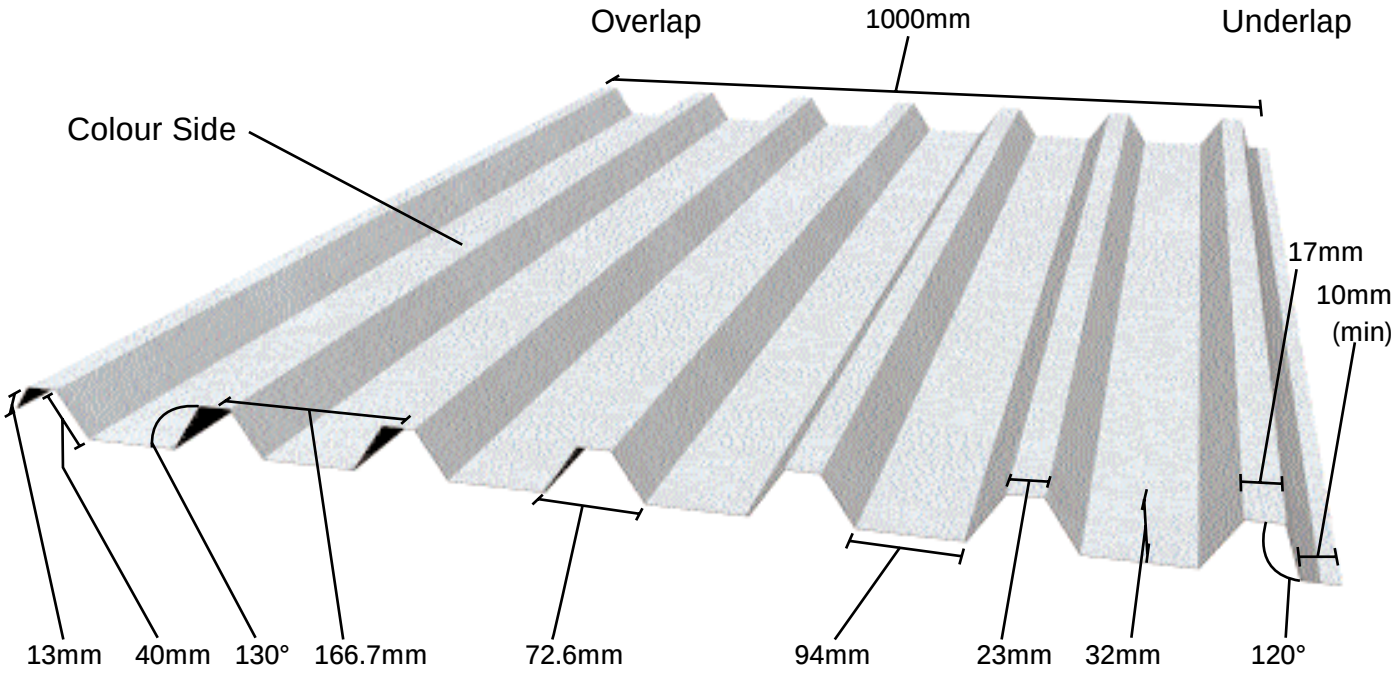
Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.5mm	Moment	5.17	4.28	3.59	3.06	2.64	2.30	2.02	1.79	1.60	1.43	1.29	1.17	1.07	0.98	0.90	0.83	0.77
	Inertia	7.63	5.73	4.41	3.47	2.78	2.26	1.86	1.55	1.31	1.11	0.95	0.82	0.72	0.63	0.55	0.49	0.43
	Reaction	19.41	17.65	16.18	14.93	13.87	12.94	12.13	11.42	10.79	10.22	9.71	9.24	8.82	8.44	8.09	7.77	7.47
	Limiting	5.17	4.28	3.59	3.06	2.64	2.26	1.86	1.55	1.31	1.11	0.95	0.82	0.72	0.63	0.55	0.49	0.43
0.7mm	Moment	7.57	6.26	5.26	4.48	3.86	3.37	2.96	2.62	2.34	2.10	1.89	1.72	1.56	1.43	1.31	1.21	1.12
	Inertia	11.01	8.27	6.37	5.01	4.01	3.26	2.69	2.24	1.89	1.61	1.38	1.19	1.03	0.91	0.80	0.70	0.63
	Reaction	35.27	32.06	29.39	27.13	25.19	23.51	22.04	20.75	19.59	18.56	17.63	16.79	16.03	15.33	14.69	14.11	13.56
	Limiting	7.57	6.26	5.26	4.48	3.86	3.26	2.69	2.24	1.89	1.61	1.38	1.19	1.03	0.91	0.80	0.70	0.63
0.9mm	Moment	9.71	8.02	6.74	5.74	4.95	4.31	3.79	3.36	3.00	2.69	2.43	2.20	2.01	1.83	1.69	1.55	1.44
	Inertia	14.16	10.64	8.20	6.45	5.16	4.20	3.46	2.88	2.43	2.06	1.77	1.53	1.33	1.16	1.02	0.91	0.81
	Reaction	54.95	49.95	45.79	42.27	39.25	36.63	34.34	32.32	30.53	28.92	27.47	26.17	24.98	23.89	22.89	21.98	21.13
	Limiting	9.71	8.02	6.74	5.74	4.95	4.20	3.46	2.88	2.43	2.06	1.77	1.53	1.33	1.16	1.02	0.91	0.81

Double Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.5mm	Moment	4.96	4.10	3.44	2.93	2.53	2.20	1.94	1.72	1.53	1.37	1.24	1.12	1.02	0.94	0.86	0.79	0.73
	Inertia	18.37	13.81	10.63	8.36	6.70	5.44	4.49	3.74	3.15	2.68	2.30	1.98	1.73	1.51	1.33	1.18	1.05
	Reaction	12.13	11.03	10.11	9.33	8.67	8.09	7.58	7.14	6.74	6.39	6.07	5.78	5.52	5.28	5.06	4.85	4.67
	Interaction	4.75	4.09	3.55	3.12	2.76	2.46	2.21	1.99	1.81	1.65	1.51	1.38	1.28	1.18	1.09	1.02	0.95
	Limiting	4.75	4.09	3.44	2.93	2.53	2.20	1.94	1.72	1.53	1.37	1.24	1.12	1.02	0.94	0.86	0.79	0.73
0.7mm	Moment	8.27	6.83	5.74	4.89	4.22	3.67	3.23	2.86	2.55	2.29	2.07	1.87	1.71	1.56	1.44	1.32	1.22
	Inertia	26.53	19.93	15.35	12.07	9.67	7.86	6.48	5.40	4.55	3.87	3.32	2.86	2.49	2.18	1.92	1.70	1.51
	Reaction	22.04	20.04	18.37	16.96	15.74	14.69	13.78	12.97	12.25	11.60	11.02	10.50	10.02	9.58	9.18	8.82	8.48
	Interaction	8.47	7.27	6.31	5.53	4.89	4.36	3.91	3.52	3.19	2.91	2.66	2.44	2.25	2.08	1.93	1.79	1.67
	Limiting	8.27	6.83	5.74	4.89	4.22	3.67	3.23	2.86	2.55	2.29	2.07	1.87	1.71	1.56	1.44	1.32	1.22
0.9mm	Moment	12.21	10.09	8.48	7.23	6.23	5.43	4.77	4.23	3.77	3.38	3.05	2.77	2.52	2.31	2.12	1.95	1.81
	Inertia	34.11	25.63	19.74	15.53	12.43	10.11	8.33	6.94	5.85	4.97	4.26	3.68	3.20	2.80	2.47	2.18	1.94
	Reaction	34.34	31.22	28.62	26.42	24.53	22.89	21.46	20.20	19.08	18.07	17.17	16.35	15.61	14.93	14.31	13.74	13.21
	Interaction	12.73	10.91	9.46	8.28	7.32	6.51	5.83	5.25	4.76	4.33	3.96	3.63	3.35	3.09	2.87	2.66	2.48
	Limiting	12.21	10.09	8.48	7.23	6.23	5.43	4.77	4.23	3.77	3.38	3.05	2.77	2.52	2.31	2.12	1.95	1.81

Quedron Roofing Systems

1000/32R - Aluminium



Dimension Details

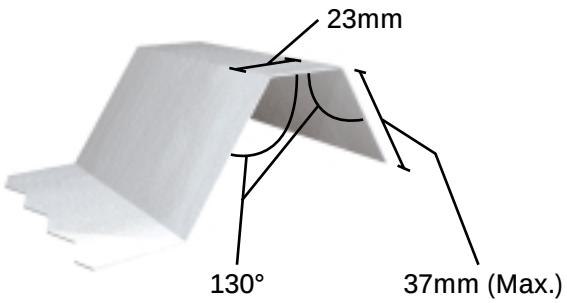
Cover Width	1000 mm
Profile Pitch	166.7 mm
Profile Depth	32 mm
Crown Width	23 mm
Valley Width	94 mm
Rib Width	72.6 mm
Web	40 mm
Underlap (Right as shown above)	10 mm (Minimum)
Overlap (Left as shown above)	13 mm (Minimum)
"Special" Underlap (as shown right)	37 mm (Minimum)

Tolerance on all dimensions as per European Standard B.S.E.N. 508-1

Weight per Linear Metre

0.7mm Mill Finish	2.338 kgs
0.9mm Mill Finish	3.006 kgs
0.7mm One Side Coated	2.363 kgs
0.9mm One Side Coated	3.039 kgs

"Special" Underlap Detail



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Deflection < L/200

t(mm)	Mcap +ve (kNm/m)	Mcap -ve (kNm/m)	Ieff (mm4/m)	Rcap (kN/m)
0.9	1.7	1.63	17.65	23.08
0.7	1.16	1.13	13.06	14.82

Single Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.7mm	Moment	6.19	5.11	4.30	3.66	3.16	2.75	2.42	2.14	1.91	1.71	1.55	1.40	1.28	1.17	1.07	0.99	0.92
	Inertia	3.46	2.60	2.00	1.58	1.26	1.03	0.84	0.70	0.59	0.50	0.43	0.37	0.32	0.28	0.25	0.22	0.20
	Reaction	19.76	17.96	16.47	15.20	14.11	13.17	12.35	11.62	10.98	10.40	9.88	9.41	8.98	8.59	8.23	7.90	7.60
	Limiting	3.46	2.60	2.00	1.58	1.26	1.03	0.84	0.70	0.59	0.50	0.43	0.37	0.32	0.28	0.25	0.22	0.20
0.9mm	Moment	9.07	7.49	6.30	5.36	4.63	4.03	3.54	3.14	2.80	2.51	2.27	2.06	1.87	1.71	1.57	1.45	1.34
	Inertia	4.68	3.51	2.71	2.13	1.70	1.39	1.14	0.95	0.80	0.68	0.58	0.50	0.44	0.38	0.34	0.30	0.27
	Reaction	30.77	27.98	25.64	23.67	21.98	20.52	19.23	18.10	17.10	16.20	15.39	14.65	13.99	13.38	12.82	12.31	11.84
	Limiting	4.68	3.51	2.71	2.13	1.70	1.39	1.14	0.95	0.80	0.68	0.58	0.50	0.44	0.38	0.34	0.30	0.27

Double Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.7mm	Moment	6.03	4.98	4.19	3.57	3.07	2.68	2.35	2.09	1.86	1.67	1.51	1.37	1.25	1.14	1.05	0.96	0.89
	Inertia	8.34	6.26	4.82	3.79	3.04	2.47	2.04	1.70	1.43	1.22	1.04	0.90	0.78	0.69	0.60	0.53	0.47
	Reaction	12.35	11.23	10.29	9.50	8.82	8.23	7.72	7.26	6.86	6.50	6.18	5.88	5.61	5.37	5.15	4.94	4.75
	Interaction	8.47	7.27	6.31	5.53	4.89	4.36	3.91	3.52	3.19	2.91	2.66	2.44	2.25	2.08	1.93	1.79	1.67
	Limiting	6.03	4.98	4.19	3.57	3.04	2.47	2.04	1.70	1.43	1.22	1.04	0.90	0.78	0.69	0.60	0.53	0.47
0.9mm	Moment	8.69	7.18	6.04	5.14	4.44	3.86	3.40	3.01	2.68	2.41	2.17	1.97	1.80	1.64	1.51	1.39	1.29
	Inertia	11.27	8.46	6.52	5.13	4.11	3.34	2.75	2.29	1.93	1.64	1.41	1.22	1.06	0.93	0.81	0.72	0.64
	Reaction	19.23	17.48	16.03	14.79	13.74	12.82	12.02	11.31	10.69	10.12	9.62	9.16	8.74	8.36	8.01	7.69	7.40
	Interaction	12.73	10.91	9.46	8.28	7.32	6.51	5.83	5.25	4.76	4.33	3.96	3.63	3.35	3.09	2.87	2.66	2.48
	Limiting	8.69	7.18	6.04	5.13	4.11	3.34	2.75	2.29	1.93	1.64	1.41	1.22	1.06	0.93	0.81	0.72	0.64

Deflection < L/100

t(mm)	Mcap +ve (kNm/m)	Mcap -ve (kNm/m)	Ieff (mm4/m)	Rcap (kN/m)
0.9	1.7	1.63	17.65	23.08
0.7	1.16	1.13	13.06	14.82

Single Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.7mm	Moment	6.19	5.11	4.30	3.66	3.16	2.75	2.42	2.14	1.91	1.71	1.55	1.40	1.28	1.17	1.07	0.99	0.92
	Inertia	6.92	5.20	4.01	3.15	2.52	2.05	1.69	1.41	1.19	1.01	0.87	0.75	0.65	0.57	0.50	0.44	0.39
	Reaction	19.76	17.96	16.47	15.20	14.11	13.17	12.35	11.62	10.98	10.40	9.88	9.41	8.98	8.59	8.23	7.90	7.60
	Limiting	6.19	5.11	4.01	3.15	2.52	2.05	1.69	1.41	1.19	1.01	0.87	0.75	0.65	0.57	0.50	0.44	0.39
0.9mm	Moment	9.07	7.49	6.30	5.36	4.63	4.03	3.54	3.14	2.80	2.51	2.27	2.06	1.87	1.71	1.57	1.45	1.34
	Inertia	9.35	7.03	5.41	4.26	3.41	2.77	2.28	1.90	1.60	1.36	1.17	1.01	0.88	0.77	0.68	0.60	0.53
	Reaction	30.77	27.98	25.64	23.67	21.98	20.52	19.23	18.10	17.10	16.20	15.39	14.65	13.99	13.38	12.82	12.31	11.84
	Limiting	9.07	7.03	5.41	4.26	3.41	2.77	2.28	1.90	1.60	1.36	1.17	1.01	0.88	0.77	0.68	0.60	0.53

Double Span Case - Permissible Working +ve Loads

Thickness	Design Case	Spans in Metres 1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.7mm	Moment	6.03	4.98	4.19	3.57	3.07	2.68	2.35	2.09	1.86	1.67	1.51	1.37	1.25	1.14	1.05	0.96	0.89
	Inertia	16.67	12.53	9.65	7.59	6.08	4.94	4.07	3.39	2.86	2.43	2.08	1.80	1.57	1.37	1.21	1.07	0.95
	Reaction	12.35	11.23	10.29	9.50	8.82	8.23	7.72	7.26	6.86	6.50	6.18	5.88	5.61	5.37	5.15	4.94	4.75
	Interaction	8.47	7.27	6.31	5.53	4.89	4.36	3.91	3.52	3.19	2.91	2.66	2.44	2.25	2.08	1.93	1.79	1.67
	Limiting	6.03	4.98	4.19	3.57	3.07	2.68	2.35	2.09	1.86	1.67	1.51	1.37	1.25	1.14	1.05	0.96	0.89
0.9mm	Moment	8.69	7.18	6.04	5.14	4.44	3.86	3.40	3.01	2.68	2.41	2.17	1.97	1.80	1.64	1.51	1.39	1.29
	Inertia	22.53	16.93	13.04	10.25	8.21	6.68	5.50	4.59	3.86	3.28	2.82	2.43	2.12	1.85	1.63	1.44	1.28
	Reaction	19.23	17.48	16.03	14.79	13.74	12.82	12.02	11.31	10.69	10.12	9.62	9.16	8.74	8.36	8.01	7.69	7.40
	Interaction	12.73	10.91	9.46	8.28	7.32	6.51	5.83	5.25	4.76	4.33	3.96	3.63	3.35	3.09	2.87	2.66	2.48
	Limiting	8.69	7.18	6.04	5.14	4.44	3.86	3.40	3.01	2.68	2.41	2.17	1.97	1.80	1.64	1.51	1.39	1.28

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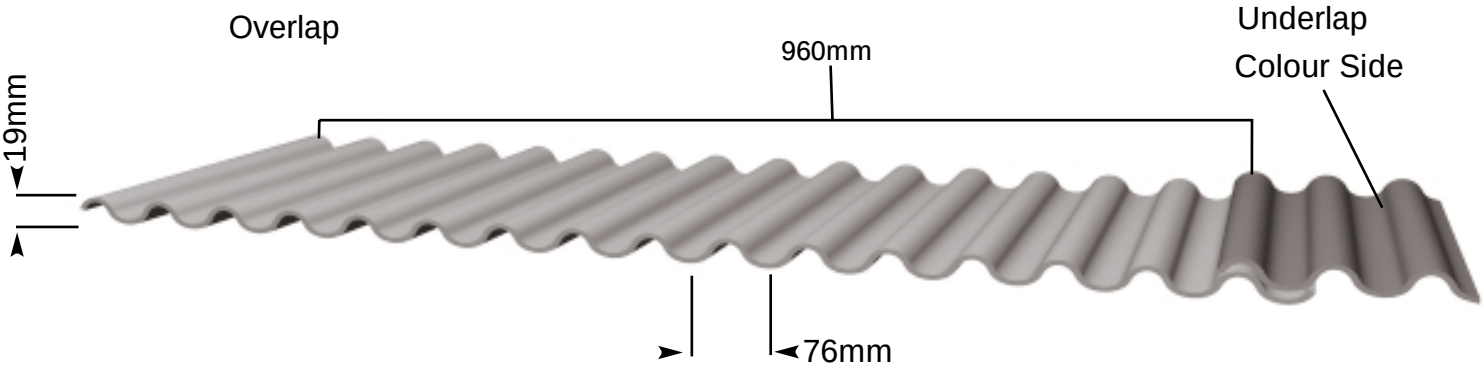
Quedron Roofing Systems

QC 13½/3 - Steel



Dimension Details

Cover Width	990 mm
Profile Pitch	76 mm
Profile Depth	19 mm
Underlap	
(Right as shown above)	19 mm (from bottom dead centre)
Overlap	
(Left as shown above)	19 mm (from top dead centre)

Weight per Linear Metre

0.5mm	4.850 kgs
0.55mm	5.330 kgs
0.7mm	6.790 kgs
0.9mm	8.730 kgs

Load/Span Deflection < L/200

t mm	Span (m)	Maximum loads (dead and Super) in kN/M² 1.2	1.4	1.6	1.8	2.0	2.2
0.55	condition ▲▲	1.18	0.74				
0.70		1.53	0.97	0.65			
0.90		1.97	1.24	0.83			

t mm	Span	Maximum loads (dead and Super) in kN/M² 1.2	1.4	1.6	1.8	2.0	2.2
0.55	condition ▲▲▲	1.97	1.24	0.82			
0.70		2.56	1.61	1.08	0.76		
0.90		3.29	2.07	1.39	0,98	0.71	

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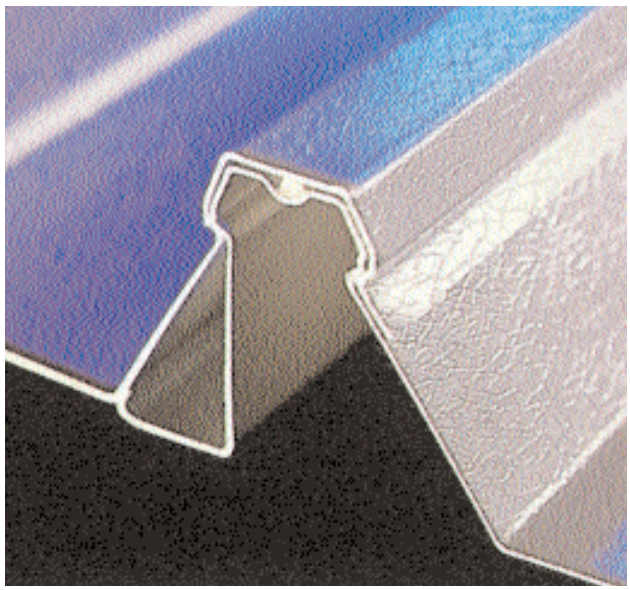
Quedron Secret Fix QSF500 - Steel

secret fix

THE BENEFITS ARE PLAIN TO SEE



Unlike other systems, which need extra fasteners, or brackets, QSF500 Secret Fix has an integral, hidden, fixing system.

That not only makes it easier and quicker to install, but it completely eliminates one of the major sources of leaks: penetration of the outer sheet.

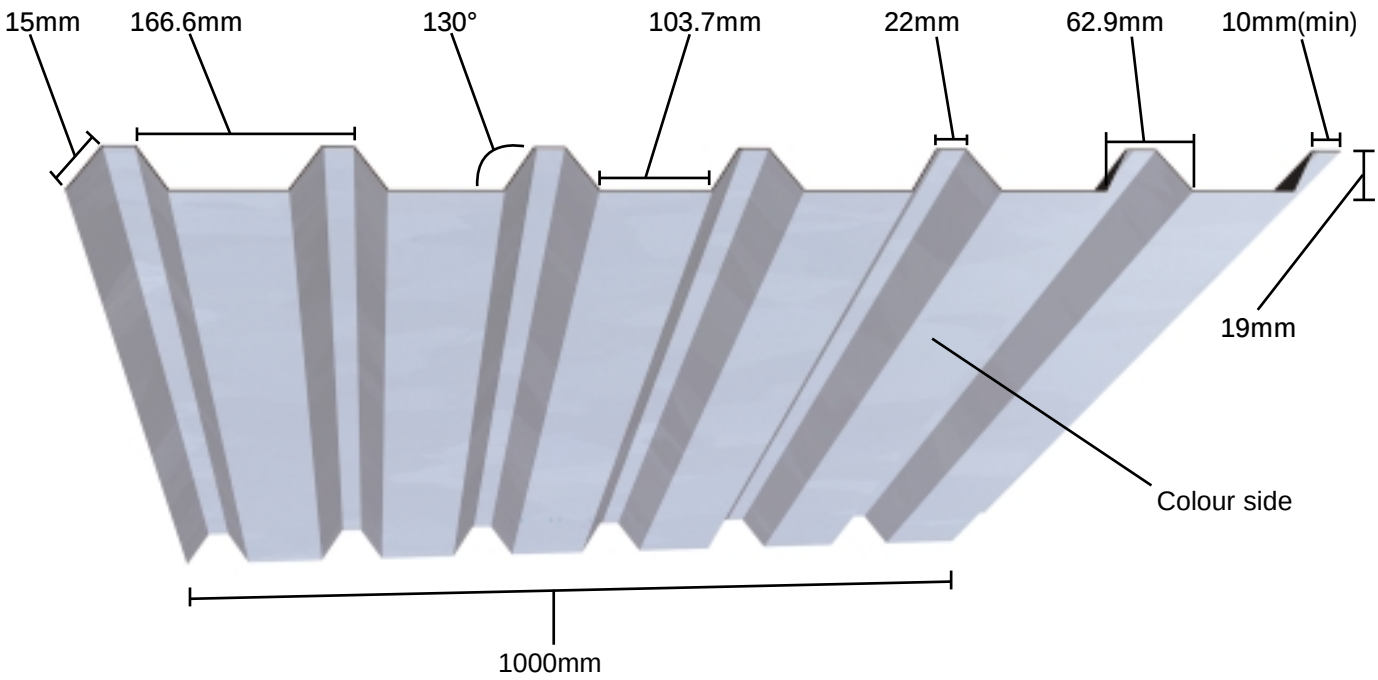
In fact QSF500 Secret Fix can be used with complete confidence down to a $2^{1}/_{2}°$ roof pitch, while the fluted base gives superior strength and resistance to ponding.

Longer lengths can also be accommodated by the rolling of QSF500 Secret Fix on site (special provision for this must be made with Quedron beforehand). QSF500 Secret Fix can be fixed directly to the main structure, or it can be used in conjunction with a liner.
QSF500 Secret Fix provides a clean, uncluttered roof line, available in an extensive choice of durable colours that should last for decades. QSF500 Secret Fix is manufactured from Dobel 200XT Plastisol, Corus Colorcoat HPS200 and PVDF.

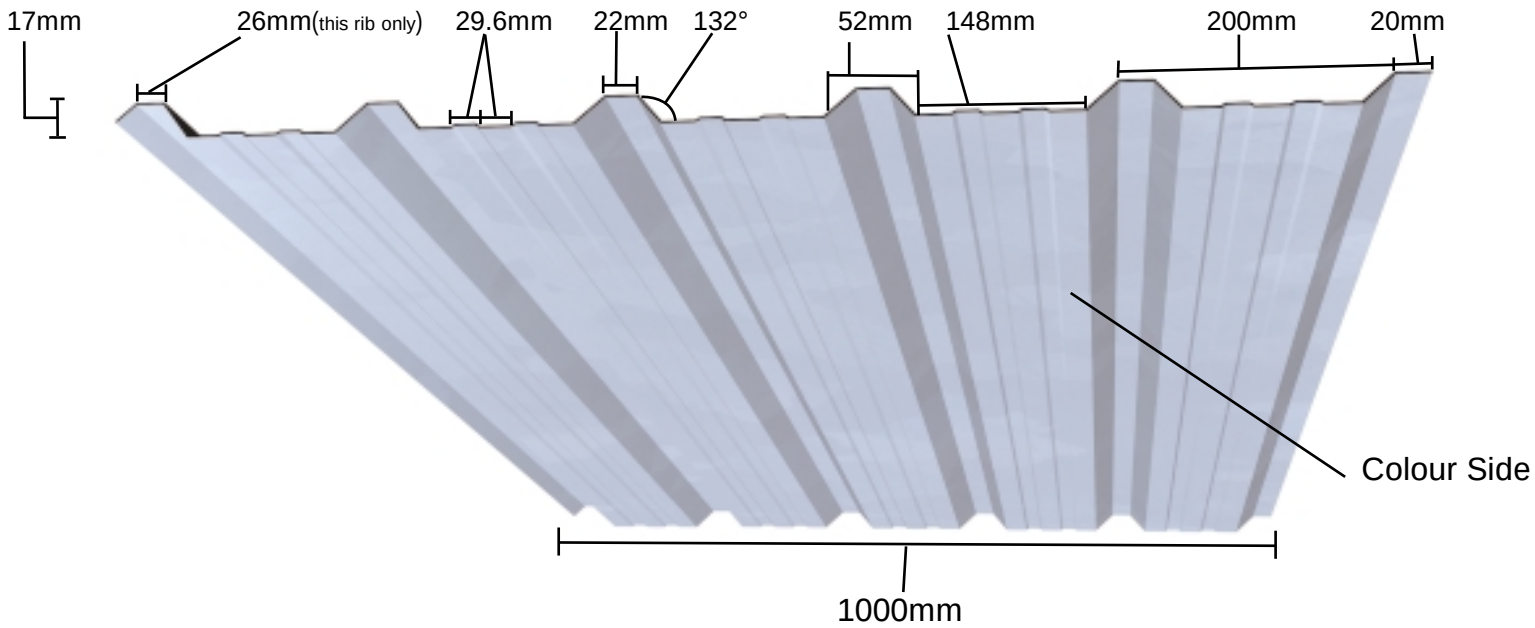
All in all, it's easy to see that QSF500 Secret Fix has a great deal to offer.

For further information please refer to the QSF500 brochure.

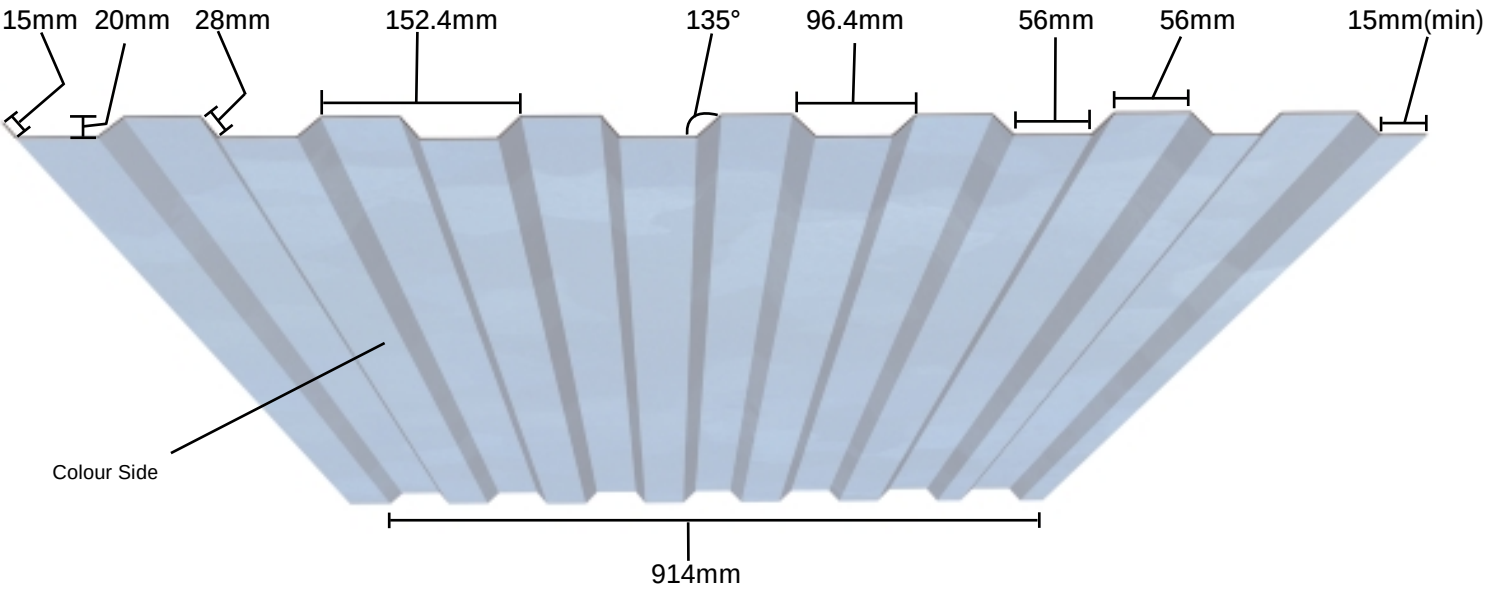
QLP19/1000



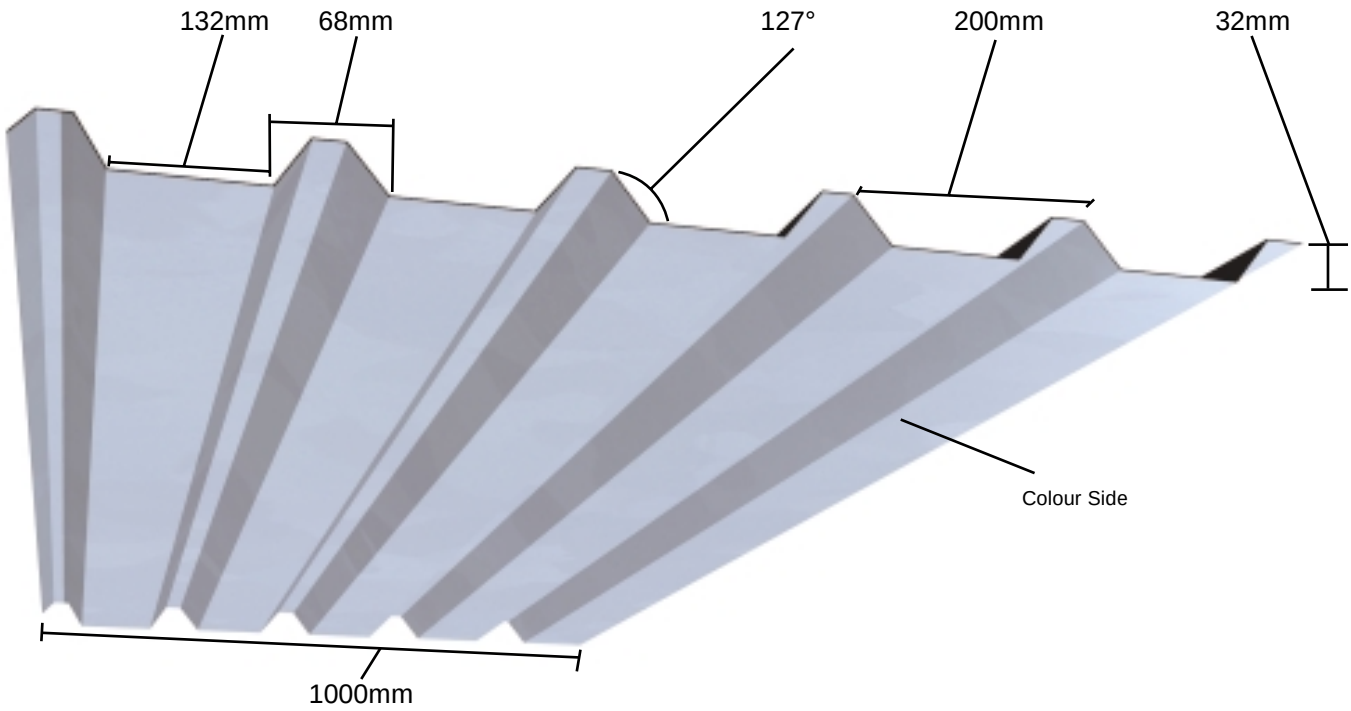
QPL5S/1000



QLP20/914



QLP32/5S



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Reverse Liner Profile

The following liner profiles are available with the colour to the reverse side.

QLP19/1000, QLP5S and QLP32/5S

Please clearly indicate your requirement with the suffix *"Reverse"* The sidelap detail may vary from that shown on the previous pages.
Typically this format is used in an under purlin construction, when this is the case the system needs to be carefully checked to ensure that it complies with current Building Regulations.
For details please contact the Sales Office

Perforated Sheet

For acoustic applications the following liner profiles, including the reverse option, can be supplied perforated.

QLP19/1000 and QLP32/5S

The standard pattern is a 3mm hole at 5mm staggered centres across the full width of the sheet achieving 30% perforation. Due to the reduction in strength of the sheet perforated liners are only supplied in 0.7mm thick material.

Special Applications

Curved Sheet

All the profiles (except QC 13½/3) in this brochure can be curved in both directions. however, the design and fixing of curved sheet requires particular attention to detail. The method of manufacture employed in producing a curved profiled sheet creates a particularly rigid panel and this must be borne in mind when using this product. A guide to the best practice is described in the " Curved Sheet Brochure"

Anti-condensation Coating

For single skin buildings where condensation on the internal surface of the sheet may be a problem, an anti-condensation coating is available on the MW5RS profile. Please contact the sales office for further details.

Typical Double Skin Roof Specification

Fixing to cold rolled purlins.
Minimum Roofpitch 5°
'U' value of 0.25W/m²K

External Sheet:

Material: 0.7mm thick steel, coated face side 200micron Leathergrain finish PVC 200XT Plastisol.

Profile: **MW5RS** or **1000/32R**
1000mm cover width x 32mm deep
WA6
914mm cover width x 38mm deep
Supported at maximum 2000mm centres, subject to loading requirements.
The end lap to be minimum 150mm.

Fixing: Main fixing on every purlin generally each side of the sidelap and a third in the centre profile with additional fixings as required in areas of high wind loads.
Sidelap Stitchers at maximum 450mm centres

Accessories:

Sealant.	Sidelap: 6mm bead or 9 x 3 Butyl mastic up to 15° roof pitch
Endlap:	Double row below fixing line of 6mm bead or 9 x 3 Butyl mastic up to 15° roof pith
Profile Filler.	Vented EPDM at ridge and eaves

Spacer System:

Bar Bracket support system.
170mm deep brackets at maximum 1000mm centres

Fixings: 2 per bracket

Insulation:

(Purlin centres = 1800mm)
0.044λ & Glass fibre Quilt 10.5kg/m³
184mm (minimum) thick, or
0.040λ Rockwool Quilt 27kg/m³
169mm (minimum) thick

Liner:

Material: 0.4mm thick steel coated face side Bright White Polyester

Profile: **QLP 19/1000**
1000mm cover width x 19mm deep
QLP5S/1000
1000mm cover width x 17mm deep
QLP20/914
914mm cover x 20mm deep

Fixing: In every other profile + 2 per bracket

Accessories: Sealant (see below).
Profile Filler.

Note

1) It is recommended that a vapour barrier is created by sealing the liner end laps with either a 6mm bead or a 9 x 3 mastic (fixing every profile) and the side-laps with a 50 x 1 butyl sealing strip.
2) In high humidity buildings a breather membrane may also be required below the top sheet and laid into the gutter at the eaves. (See page 26).

For Further Fixing Details see Installation section

Materials and Coatings

Quedron profiles are available in a wide range of finishes as listed below, for the colours available please refer to the appropriate colour chart.

PVC Leathergrain

SSAB Dobel 200XT. 200 micron plastisol leathergrain emboss finish to one side, on Aluzinc to BS EN 10215:1995 S250DG+AZ150 substrate with a 15 micron smooth light grey primer reverse.
Stock gauges are 0.7 and 0.55 mm thick.
Double sided 200XT is also available with a nominal 100 micron smooth Plastisol coating to the reverse.

PVC Scintilla

Corus Colorcoat HPS200. 200 micron organic Scintilla emboss finish to one side, on a hot dipped zinc-aluminium alloy coated steel substrate to BS EN 10214:1995 with a two coat primer and polyester reverse.
Stock gauges are 0.7 and 0.55 mm thick.

PVDF

Colorcoat PVDF. 27 micron smooth fluorocarbon finish to one side, on a hot dipped zinc coated steel substrate to BS EN 10147:2000 with a two coat primer and polyester reverse.
Stock gauges are 0.7 and a limited colour range in 0.55 mm thick.

POLYESTER

SSAB Dobel Base 30. 27 micron smooth polyester to one side, on Aluzinc to BS EN 10215:1995 S250DG+AZ150 substrate with a 15 micron smooth light grey primer reverse.
Stock gauges are 0.5 and a limited colour range in 0.7 mm thick.

NOVA

SSAB Dobel Nova. 50 micron polyester to one side on either hot dipped zinc galvanised steel to BS EN 10147: 2000 S250 DG+Z275 substrate with a smooth grey epoxy reverse.

LINER

17 micron Bright White (S5020) Polyester to one side on hot dipped zinc galvanised steel to BS EN 10147, Fe E 220g substrate with a smooth grey polyester reverse.
Stock gauges are 0.4 and 0.7 mm thick.

GALVANISED STEEL, ALUMINIUM and ALUZINC

These materials are all available in mill finish and a range of gauges

Fire rating

PVC plastisol, PVDF and polyester coated steel have a non-combustable core of galvanised substrate with an FAA rating to BS476, Part 3. The PVC, PVDF and polyester coatings have a Class 1 surface spread of flame and are deemed to satisfy Class '0' of the Building Regulations. Aluminium alloy is non-combustible and has an FAA rating to BS476, part 4: 1970, and has a Class 1 surface spread of flame when tested in accordance with BS476, Part 7.

Rooflights

Available in GRP to suit all Quedron Profiles. These can be supplied as single sheets, double or triple skin. The double or triple skin can be achieved as a factory sealed unit, or when Quedron liner is specified, as two or three independent sheets which can be constructed on site to achieve a satisfactory rooflight. It is essential to effectively seal against moisture, or condensation problems may arise. Each manufacturer has their own technical departments. Please refer to them with particular queries.

Single Skin Trapezoidal Profile

Weight	Fire Rating	Life Span
3.06kg/m^2	Class B	15-20 years

In Situ Double Skin with Non-fragile liner

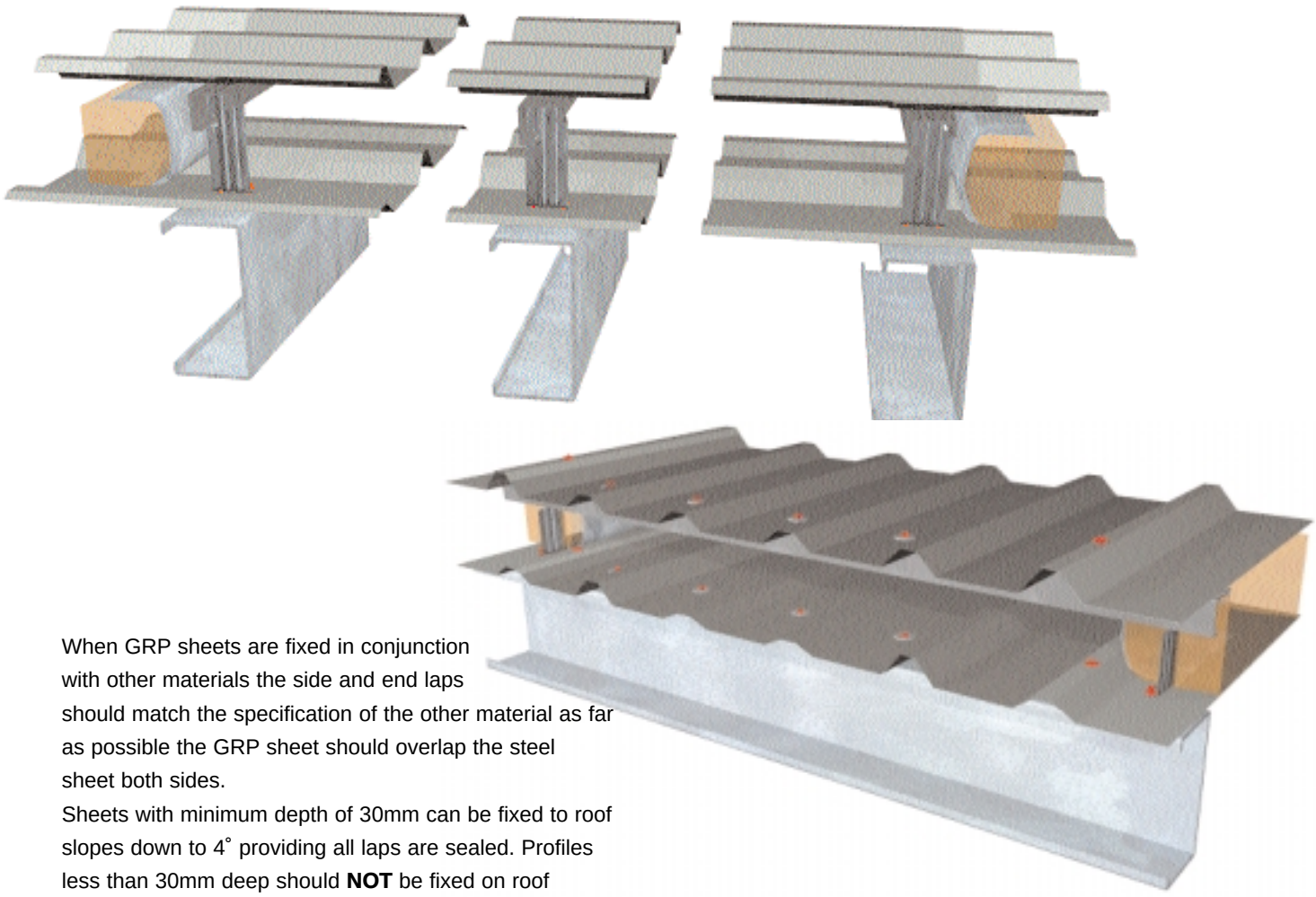
Weight	Fire Rating	Life Span
1.83kg/m^2 Top sheet	Class B	20-25 years
2.44kg/m^2 Liner		

In Situ Double Skin when not Lining-out First

Weight	Fire Rating	Life Span
2.44kg/m^2 Top sheet	Class B	20-25 years
1.83kg/m^2 Liner		

Non-fragile during construction phase.
Treat as fragile in maintenance phase.
Do NOT walk on rooflights at any time.

Typical Rooflight Fixing



When GRP sheets are fixed in conjunction with other materials the side and end laps should match the specification of the other material as far as possible the GRP sheet should overlap the steel sheet both sides.
Sheets with minimum depth of 30mm can be fixed to roof slopes down to 4˚ providing all laps are sealed. Profiles less than 30mm deep should **NOT** be fixed on roof pitches of less than 6˚.

Installation

Quedron's profiles are used extensively in the roofing of both new and refurbished buildings. Those described in this brochure are ideally suited to this application, however, certain criteria must be adhered to if the profile is to achieve its full potential. The use of trapezoidal weather sheets should be avoided where the pitch is below 5°. For pitches below this, Quedron QSF500 should be considered. Please refer to the product specific literature in these instances. The following summary refers to trapezoidal profiles only.

Profiles: WA6 and 1000/32R & MW5R

Roof Pitch	*Side Lap*	*End Lap*
Less than 5°	Not recommended	Not recommended
5° to 10°	Fixings at not greater than 450mm centres. The lap should also be sealed with a continuous bead of mastic.	End laps should be avoided if possible, but where they do occur they should be 150mm and sealed with a double row of mastic. The lower row of mastic to be as near to the end lap of the sheet as practical.
10° to 15°	Fixings as above, but the sealant may be omitted (dependent on local conditions).	End laps should be avoided if possible, but where they do occur they should be 150mm and sealed with a double row of mastic. The lower row of mastic to be as near to the end lap of the sheet as practical.
Above 15°	As above.	The sealing of the endlaps may be omitted unless severe conditions are anticipated.

Direction of Lay

Particular reference should be made to the underlap and overlap configuration of the particular profile specified. The sheets should then be laid as figure 1. The side laps should, where possible be laid away from the direction of the prevailing wind.

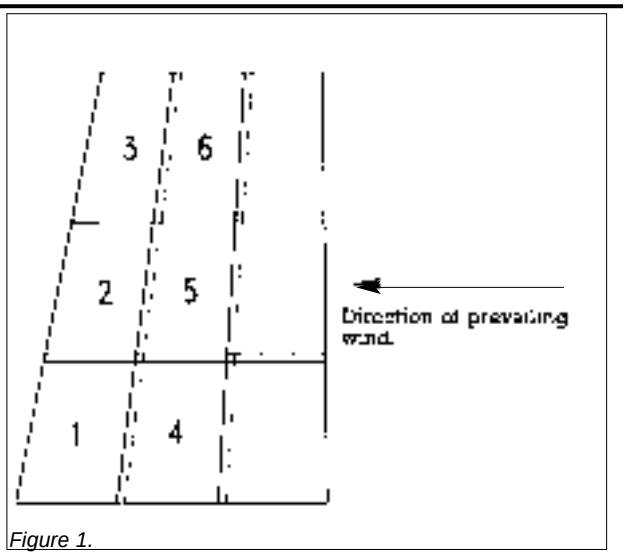


Figure 1.

Drilling/Cutting

All holes must be drilled and not punched. It is imperative that the residue swarf be immediately swept off the sheet to avoid unsightly staining.

All cutting of profiled sheet on site should be achieved with a nibbler tool or cladding saw. These tools are designed to impart the minimum of heat to the sheet. The sheet should not be cut with a carborundum disc or portable circular saw.

Any slight surface damage which may have occurred during fixing should be made good with either touch up paint or PVC paste which is supplied to match all colorcoat finishes.

Bracket and Bar Systems

The over rail built up system is typically a bracket & bar spacer system incorporating a 1.5mm thick hot dipped galvanised steel bracket and (both Z275 to BS EN 10147 : 1992. The bracket base has pre-drilled holes and the size of the bracket determines the size of the cavity created for the insulation. Various bracket sizes are supplied by Quedron with rail lengths 1, 2 or 3 metres available.

Installation

Fixings Specification (carbon steel)

SFS FIXINGS

Purpose	Gauge	Description	Fixing Frequency
Fixing of Liner Sheet Ends	1.2mm - 3.0mm 3.0mm - 12.5mm	SFS Code SD3-T15 - 5.5 x 25 SFS Code SD14-T15 - 5.5 x 32	1 per valley
Fixing of Spacer Bracket to Sheeting Rail	1.2mm - 3.0mm 3.0mm - 12.5mm	SFS Code SD3 - 5.5 x 25 SFS Code SD14 - 5.5 x 32	2 per bracket @ 1m centres (see note 5 below)
Fixing of Weathersheet to Rail		SFS Code SDP3-T16 (or T19) - 5.5 x 25	1 per valley
Side stitching of outer sheet	1.2mm - 3.5mm	SFS Code SLP2-T-A14 - 4.8 x 20	450mm Centres

EJOT FIXINGS

Purpose	Gauge	Description	Fixing Frequency
Fixing of Liner	1.2mm - 3.0mm 4.0mm - 12.5mm	Ejot Code LS25 Ejot Code HS38	1 per valley
Fixing of Spacer Bracket to Sheeting Rail	1.2mm - 3.0mm 4.0mm - 12.5mm	Ejot Code LS25 Ejot Code HS38	2 per bracket @ 1m centres (see note 5 below)
Fixing of Weathersheet to Rail		Ejot Code JT2 x 25	1 per valley
Side stitching of outer sheet	0.5mm - 2.0mm	Ejot Code SF25 G16	450mm Centres

Notes :
1. The above assumes normal U.K. urban conditions. If a more severe environment is anticipated, please refer to Quedron, or the fixing manufacturer.
2. All fixings must have a sealed washer and external fixings should also have a colour coded cap.
3. Equivalent products are available from several fixing manufacturers.
4. If aluminium sheets are used all fixings should be stainless steel.
5. Position bracket in 1st valley that forms the underlapping side of the lap.

Breather Membranes

It is no longer necessary to install a breather membrane in the majority of twin skin metal roofing cladding applications.

This is the latest advice from the Metal Cladding & Roofing Manufacturers Association (MCRMA) and is the result of work which has recently been carried out by the Building Research Establishment (BRE), in collaboration with the MCRMA, to examine in detail the factors that determine the risk of condensation within twin skin metal roofs.

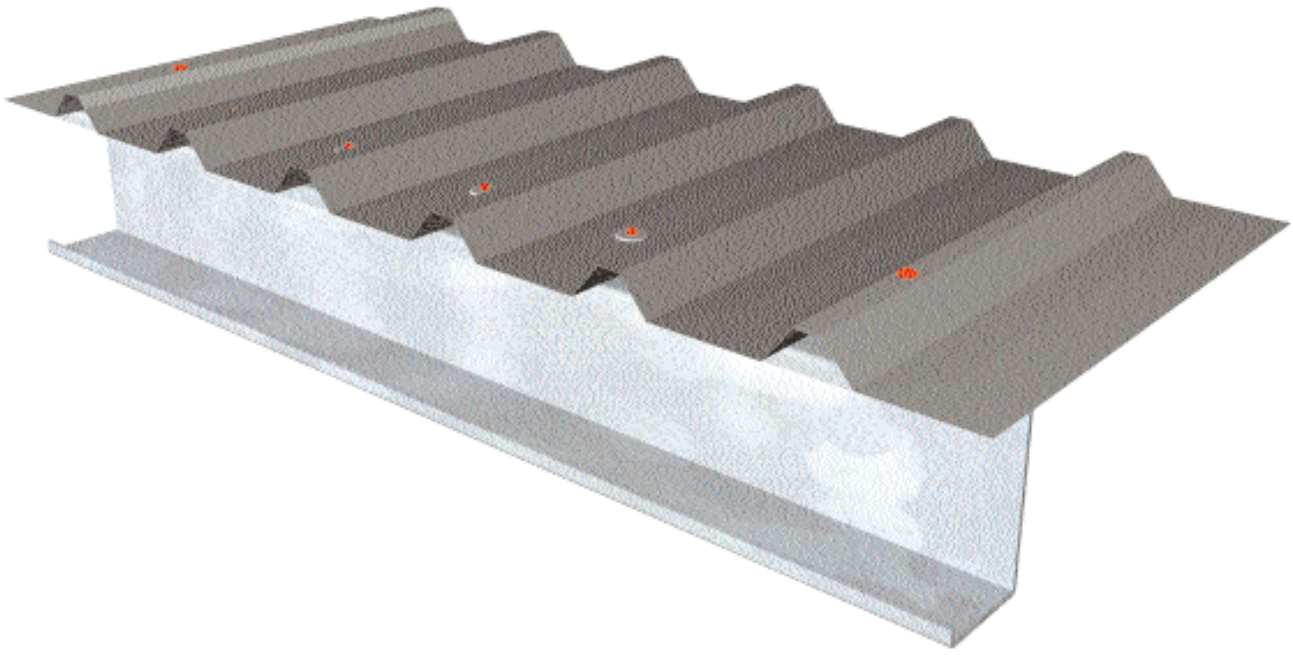
This work has demonstrated that, if a well sealed liner is used in conjunction with vented fillers for the outer sheet, only small amounts of condensation may occur on the external sheet over the winter and there will not be sufficient accumulation to cause dripping or running. Therefore, so long as the cladding is installed with a high standard of workmanship with appropriate detailing, especially a well sealed liner, it is not necessary to install a breather membrane except in cases where there is likely to be an unusually high internal moisture load.

Previously, the best practice advice contained in the second edition of the BRE publication 'Thermal insulation: avoiding risk' (BR 262) published in 1994, suggested that a breather membrane be placed between the insulation and the outer skin of a twin skin metal roof, in order to prevent any dripping or running of condensed water onto the insulation.

This was based on the best information available at the time, which suggested that although the primary means of preventing condensation problems was a well sealed liner sheet or vapour check below the insulation, a breather membrane would provide a second line of defence. This would be especially important in the case of buildings with high internal moisture loads such as swimming pools.

This latest work will be taken into account in the new version of 'Thermal insulation: avoiding risks' which has been prepared to accompany the new edition of Approved Document L2 of the Building Regulations.

Building designers and building control officers may well like to take this latest guidance into account in both current and future projects.



Cut Edge Protection

Discussing the prospect of using a colorcoat sheet for cladding, buildings will invariably raise the question of cut edge corrosion, it is a natural concern.

A fear that many architects and design engineers have experienced is that a sheared edge of colorcoat will corrode when exposed to the atmosphere. It is a chemical fact that when steel and zinc are in contact in the presence of moisture there is an automatic electro-chemical action which protects the steel. Furthermore, 200XT material guarantee now covers corrosion commencing at cut edges.

It is usually necessary during the course of cladding a structure that either the 'colorcoat' sheet or the flashings will be cut on site. To ensure that the ability of the zinc to protect the steel is not impaired, these cuts must be achieved with the correct tools. Above all, heat must not be created during the process because of the risk of damage to the zinc coating and therefore a corresponding reduction in the life expectancy of the roof or cladding.

However, the exposed edge may be treated with an approved edge protection paint system to enhance its resistance to atmospheric pollution. The edge referred to here is that defined by the profile shape in cross section i.e. the cut end of the sheet. Painting the edges will considerably enhance the durability of the coating and the substrate in the region of the cut edge and will also reduce the possibility of pattern staining.

Suppliers who offer paint systems are listed below:

Becker Industrial Coatings Ltd.
Ltd.
Goodlass Road
Speke
Liverpool L24 9HJ
Tel: 0151 448 1010

Azko Nobel Coatings

PO Box 37
Crown House
Hollins Road
Darwen
Lancs. BB3 0BG
Tel: 01254 760760

Covac Ltd.
Eagle House
Bilton Way
Lutterworth
Leicestershire LE17 4JA
Tel: 01455 556631

The paint systems from these companies can be applied to the area of the cut edge with a brush or other suitable means.

Fragility - Fixing Sheets to Achieve Non-fragility

Installation as per the following specification will ensure non-fragile status with purlins at 1800mm centres.

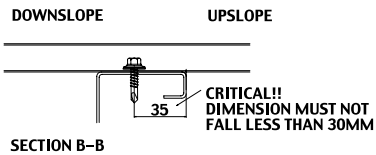
It can be taken that if one layer of the built-up system is classified as non-fragile, then the whole of the built-up system can be taken as non-fragile.

Please note that all tests have been carried out without the use of butyl strip, tape or gun applied sealants. The use of such products in conjunction with Quedron liner sheets to provide a vapour control layer would not be detrimental to the non-fragile status of the product.

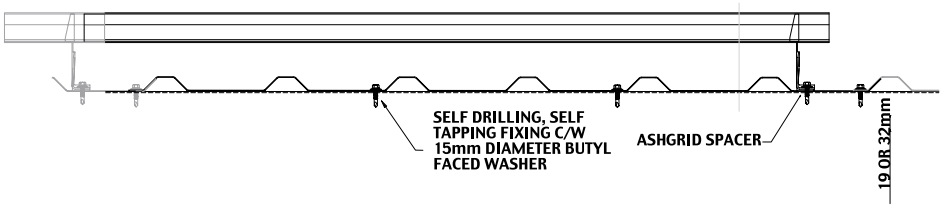
QUEDRON FIXING SPECIFICATION FOR 0.4mm & 0.7mm QLP5S, QLP 19/1000 and 0.7mm QLP 32/5S LINER SYSTEM TO ACHIEVE NON FRAGILE CLASSIFICATION IN ACCORDANCE WITH THE HSE DOCUMENT ACR[M]001:2000 TEST FOR FRAGILITY OF ROOFING ASSEMBLIES [SECOND EDITION].

The following details outline the minimum requirements for quantities of fasteners, fastener types, positions, edge distances and Rail & Bracket System installation to achieve non-fragility certification. It is imperative that these recommendations are followed exactly to ensure that the non-fragile status of our product is not compromised. Any deviation from these recommendations will invalidate the Non Fragile Status. The Fasteners identified are for fixing to cold rolled purlins only. For other structural supports consult the Quedron technical department.

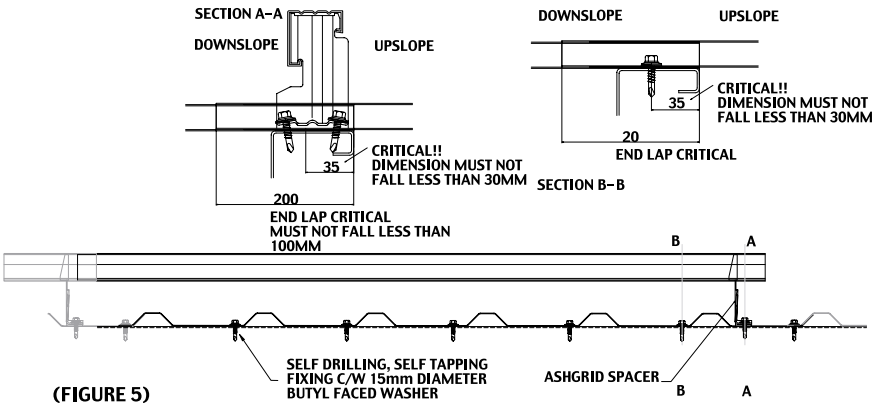
As with any other product, where the liner sheet is exposed to wind loads, it should be noted that wind uplift varies depending upon many factors and the roofing contractor is required to ensure fixing is adequate to accommodate wind loads calculated as per the requirements of BS 6399.



Sheet Ends



Sheets Continuous Over Purlins



(FIGURE 5)

Caution

If any components supporting the outer weathering sheets and / or fixing to the liner are disturbed, removed or damaged in any way whatsoever the lining system should be classed as ‘fragile’ and appropriate safety precautions must be taken to prevent falls through the liner system.

Lifetime of Non-Fragile Status

The Non-fragile status of the system must be considered as time dependant. The period of time that the assembly will remain non-fragile is difficult to predict. It is not an exact science. Environmental conditions will vary according to the location and / or processes contained within and around the building. Quedron 2001 Ltd. does not, therefore, state a specific period of for which any assembly will remain non-fragile.

Please remember that the built-up system includes many components that make up the assembly, including fixings and washers. The non-fragile assembly will only be as good as its weakest link, thus Quedron 2001 Ltd can only state that an assembly will be non-fragile as long as all the components that make up that assembly have not suffered detrimentally from the effects of the environment to which they have been exposed.

All information issued by Quedron 2001 Ltd is subject to continuous development and the information and details contained in this information document are current at date of issue.

Handling / Storage

The following comments refer to the trapezoidal profiles and not to QSF500, which has particular packing/handling notes in the relevant section.

Every profiled sheet is carefully inspected before despatch and consignments are packed in maximum 2 tonne edge wrapped strapped bundles. It must be emphasised that these sheets are quality products and should be handled accordingly.

On arrival at the site, care should be taken in the offloading; avoid unnecessary handling of the sheets, lifting (not dragging) them directly off the bundles.

When hoisting bundles and sheets into position, protect the edges and ensure that the pressure across the sheets and flashings does not cause distortion. Use rope, not chains, for hoisting.

Note: Quedron pallets are not suitable for crane off-load.

If a protective, strippable film has been applied to the coating, this should be removed from the underlap edge prior to fixing and the remainder removed within 7 days.

Failure to observe simple, but essential precautions, when storing and handling galvanised and colour coated roofing sheets on site, leads to repeated complaints of corroding and damage. Investigation shows that in almost every case damage is due to negligence prior to use. The most common fault is exposing stacked sheets to the weather for weeks, even months – often lying in long grass. Avoid careless handling.

To ensure that sheets do not deteriorate when stored on building sites, the following precautions are essential:

Do not leave uncovered stacks lying in the open. Store under cover and away from open doorways.

If stacks cannot be kept under cover, erect a simple scaffolding around them and cover with a waterproof sheet, tarpaulin or polythene, but leave space between cover and sheets to allow air to circulate.

Store stacks off the ground and on a slope, so that should rain penetrate the covering, the water will drain away.

Inspect the storage site regularly to ensure that moisture, despite the above precautions, has not penetrated the stock.

Do not store sheets where people will walk across them. Observe these precautions and they will save you trouble, time and money.

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