

Insulated Panels
Standing Seam Systems

Protected by



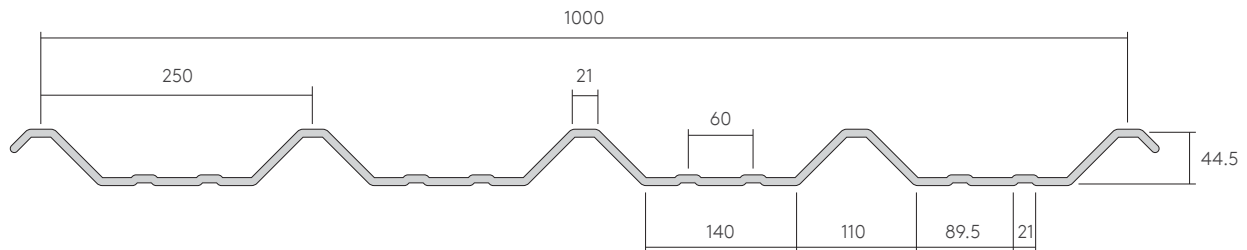
45/250 Profiled Liner Product Data Sheet



Profiled Liner – 45/250

Technical Data

The 45/250 profile is typically used for industrial applications as part of a single or twin skin roof or wall cladding solution. The profile can be laid vertically, horizontally or diagonally.



Product Specification

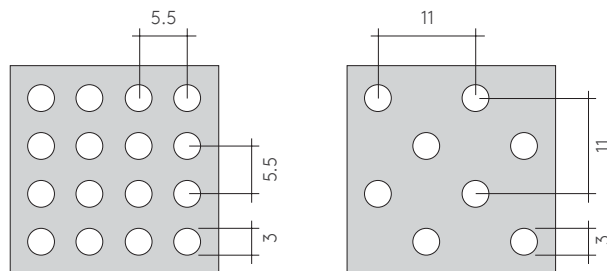
Materials:	Steel: S220GD with either a Z275 galvanised (ASTM A653) or AZ150 AluZinc (ASTM A792) coating. Aluminium: AA3105 alloy to ASTM B209
Coatings:	Kingspan PVDF, Kingspan Spectrum, Kingspan Polyester
Lengths:	1.5 m to 12 m
Thickness:	See table
Fire Performance:	Kingspan sheets in either steel and aluminium carries a spread of flame and smoke index rating of zero
Product Tolerances:	Length: +/-7 mm (0 - 3,500 mm) /0.5 mm for each metre Width: +/-2 mm Edge squareness: +/-3 mm
Curving:	See table
Perforation:	The below perforation options are available

Dimensions and Weight

Substrate Thickness (mm)	0.50	0.60	0.70	0.80	0.90	1.00
Weight (kg/m ²) – Steel	4.88	5.86	6.83	7.81	8.78	9.76
Weight (kg/m ²) – Aluminium	1.70	2.04	2.38	2.72	3.06	3.40

Convex Curving

Type	Material	Perforation	Min Radius (mm)
Crimped curved	Steel and aluminium	Non-perforated	600
		Perforated	1,000



Load Span – Profiled Liner 45/250

Steel at 220 MPa Yield Strength

Profile Thickness (mm)	Span (m)	Wind Suction Load (KN/m ²)			Imposed Load (KN/m ²)		
		Single	Double	Multiple	Single	Double	Multiple
0.50	1000	5.99	4.33	5.05	5.99	4.97	5.44
	1200	4.17	3.02	3.52	3.78	4.13	4.52
	1400	3.08	2.23	2.60	2.36	3.53	3.87
	1600	2.29	1.72	2.00	1.56	3.08	3.38
	1800	1.62	1.37	1.59	1.07	2.53	2.68
	2000	1.20	1.12	1.30	0.76	1.93	1.93
	2200	0.91	0.93	1.08	0.56	1.44	1.44
	2400	0.71	0.79	0.92	0.41	1.09	1.09
	2600	0.57	0.68	0.79	0.31	0.84	0.84
0.60	1000	7.19	5.20	6.06	7.19	5.96	6.53
	1200	5.01	3.63	4.23	4.54	4.96	5.43
	1400	3.69	2.68	3.12	2.83	4.24	4.64
	1600	2.75	2.07	2.40	1.87	3.70	4.05
	1800	1.95	1.64	1.91	1.29	3.03	3.21
	2000	1.44	1.34	1.56	0.92	2.32	2.32
	2200	1.09	1.12	1.30	0.67	1.72	1.72
	2400	0.86	0.95	1.10	0.50	1.31	1.31
	2600	0.69	0.82	0.95	0.37	1.01	1.01
0.70	1000	8.38	6.07	7.08	8.39	6.96	7.62
	1200	5.84	4.23	4.93	5.29	5.78	6.33
	1400	4.31	3.13	3.64	3.30	4.94	5.41
	1600	3.21	2.41	2.80	2.18	4.31	4.73
	1800	2.27	1.92	2.23	1.50	3.54	3.75
	2000	1.68	1.57	1.82	1.07	2.71	2.71
	2200	1.28	1.31	1.51	0.78	2.01	2.01
	2400	1.00	1.11	1.28	0.58	1.53	1.53
	2600	0.80	0.95	1.10	0.44	1.18	1.18
0.80	1000	9.58	6.93	8.09	9.59	7.95	8.71
	1200	6.68	4.84	5.64	6.05	6.61	7.24
	1400	4.93	3.57	4.16	3.77	5.65	6.19
	1600	3.67	2.75	3.21	2.49	4.93	5.40
	1800	2.60	2.19	2.55	1.72	4.04	4.29
	2000	1.92	1.79	2.08	1.22	3.10	3.10
	2200	1.46	1.49	1.73	0.89	2.30	2.30
	2400	1.14	1.27	1.47	0.66	1.75	1.75
	2600	0.91	1.09	1.26	0.50	1.35	1.35
0.90	1000	10.78	7.80	9.10	10.79	8.95	9.80
	1200	7.51	5.44	6.34	6.80	7.44	8.14
	1400	5.54	4.02	4.68	4.24	6.36	6.96
	1600	4.13	3.10	3.61	2.80	5.55	6.08
	1800	2.92	2.47	2.87	1.93	4.55	4.82
	2000	2.15	2.01	2.34	1.38	3.48	3.48
	2200	1.64	1.68	1.95	1.00	2.59	2.59
	2400	1.28	1.43	1.65	0.74	1.96	1.96
	2600	1.03	1.23	1.42	0.56	1.52	1.52
1.00	1000	11.98	8.67	10.11	11.99	9.94	10.88
	1200	8.35	6.05	7.05	7.56	8.26	9.05
	1400	6.16	4.47	5.20	4.71	7.06	7.74
	1600	4.58	3.44	4.01	3.11	6.16	6.75
	1800	3.25	2.74	3.19	2.15	5.05	5.36
	2000	2.39	2.24	2.60	1.53	3.87	3.87
	2200	1.82	1.87	2.16	1.11	2.87	2.87
	2400	1.43	1.58	1.83	0.83	2.18	2.18
	2600	1.14	1.36	1.58	0.62	1.69	1.69

Notes:

1. Deflection limits are L/180 for wind suction loads and L/240 for imposed loads.
2. The values in this load-span table consider load factors of 1.40 for dead load and 1.60 for imposed and wind loads.
3. The minimum bearing width allowed for to generate the values in this load-span is 60 mm.
4. Detailed static calculations based on project loadings shall supersede this load-span table.

Profiled Liner – 45/250

Technical Data

Load Span – Profiled Liner 45/250

Aluminium at 130 MPa Yield Strength

Profile Thickness (mm)	Span (m)	Wind Suction Load (KN/m ²)			Imposed Load (KN/m ²)		
		Single	Double	Multiple	Single	Double	Multiple
0.50	1000	3.16	2.55	2.97	2.25	2.24	2.45
	1200	1.83	1.77	2.07	1.29	1.86	2.04
	1400	1.16	1.31	1.53	0.80	1.59	1.74
	1600	0.78	1.01	1.17	0.53	1.31	1.31
	1800	0.55	0.80	0.93	0.37	0.91	0.91
	2000	0.41	0.65	0.76	0.26	0.66	0.66
	2200	0.31	0.54	0.63	0.19	0.49	0.49
	2400	0.24	0.46	0.53	0.14	0.37	0.37
	2600	0.20	0.39	0.45	0.11	0.29	0.29
	1000	3.79	3.06	3.57	2.70	2.69	2.94
0.60	1200	2.20	2.13	2.48	1.55	2.23	2.45
	1400	1.39	1.57	1.83	0.96	1.91	2.09
	1600	0.94	1.21	1.41	0.64	1.57	1.57
	1800	0.67	0.96	1.12	0.44	1.10	1.10
	2000	0.49	0.78	0.91	0.31	0.79	0.79
	2200	0.37	0.65	0.75	0.23	0.59	0.59
	2400	0.29	0.55	0.64	0.17	0.45	0.45
	2600	0.23	0.47	0.54	0.13	0.35	0.35
0.70	1000	4.42	3.57	4.16	3.15	3.14	3.43
	1200	2.57	2.48	2.90	1.81	2.61	2.85
	1400	1.62	1.83	2.14	1.13	2.23	2.44
	1600	1.10	1.41	1.64	0.74	1.84	1.84
	1800	0.78	1.12	1.30	0.51	1.28	1.28
	2000	0.57	0.91	1.06	0.36	0.92	0.92
	2200	0.44	0.76	0.88	0.27	0.69	0.69
	2400	0.34	0.64	0.74	0.20	0.52	0.52
0.80	2600	0.27	0.55	0.63	0.15	0.40	0.40
	1000	5.05	4.08	4.76	3.59	3.58	3.92
	1200	2.93	2.84	3.31	2.06	2.98	3.26
	1400	1.86	2.09	2.44	1.29	2.55	2.79
	1600	1.25	1.61	1.88	0.85	2.10	2.10
	1800	0.89	1.28	1.49	0.59	1.46	1.46
	2000	0.65	1.04	1.21	0.42	1.06	1.06
	2200	0.50	0.86	1.00	0.30	0.78	0.78
0.90	2400	0.39	0.73	0.85	0.23	0.60	0.60
	2600	0.31	0.63	0.71	0.17	0.46	0.46
	1000	5.68	4.59	5.35	4.04	4.03	4.41
	1200	3.30	3.19	3.73	2.32	3.35	3.67
	1400	2.09	2.36	2.75	1.45	2.87	3.14
	1600	1.41	1.81	2.11	0.96	2.36	2.36
	1800	1.00	1.44	1.67	0.66	1.65	1.65
	2000	0.74	1.17	1.36	0.47	1.19	1.19
1.00	2200	0.56	0.97	1.13	0.34	0.88	0.88
	2400	0.44	0.82	0.95	0.25	0.67	0.67
	2600	0.35	0.70	0.80	0.19	0.52	0.52
	1000	6.31	5.10	5.95	4.49	4.48	4.90
	1200	3.67	3.55	4.14	2.58	3.72	4.08
	1400	2.32	2.62	3.05	1.61	3.19	3.49
	1600	1.57	2.01	2.34	1.06	2.62	2.62
	1800	1.11	1.60	1.86	0.73	1.83	1.83
1.00	2000	0.82	1.30	1.51	0.52	1.32	1.32
	2200	0.62	1.08	1.26	0.38	0.98	0.98
	2400	0.49	0.91	1.06	0.28	0.74	0.74
	2600	0.39	0.78	0.89	0.21	0.58	0.58

Notes:

1. Deflection limits are L/180 for wind suction loads and L/240 for imposed loads.
2. The values in this load-span table consider load factors of 1.40 for dead load and 1.60 for imposed and wind loads.
3. The minimum bearing width allowed for to generate the values in this load-span is 60 mm.
4. Detailed static calculations based on project loadings shall supersede this load-span table.

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