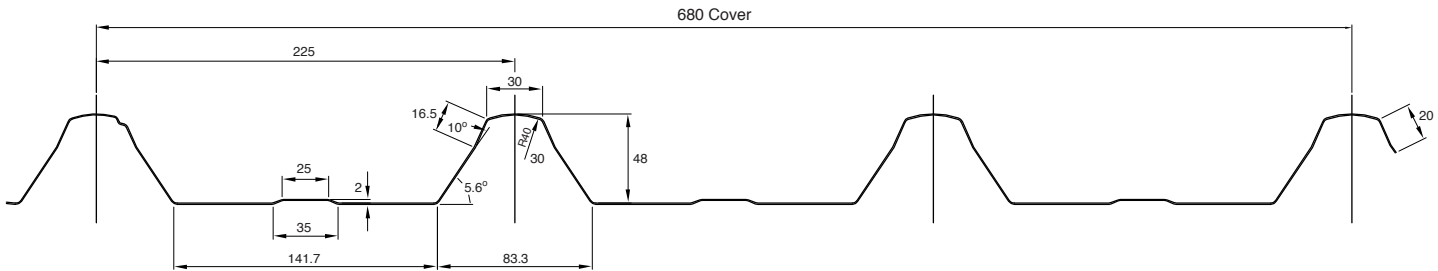


Hi-DEK 680 Roof Cladding



Hi-DEK 680 is a pierced fixed, high strength, low pitch roofing profile suitable for warehouse roofing, carports and pergolas.

Minimum Pitch (1–60)



Material Specification

0.42 or 0.48	Zincalume®	G550 AM125
0.42 or 0.48	Galvanised	G550 Z450
0.42 or 0.48	Colorbond®	G550 AM100

SPECIAL ORDERS

Stainless Steel, Metallic, Coolmax and Ultra

Product Mass

BMT		kg/m ²
0.42	Zincalume®	4.74
0.42	Colorbond®	4.77
0.42	Galvanised	5.17
0.48	Zincalume®	5.39
0.48	Colorbond®	5.43
0.48	Galvanised	5.81

Maximum Support Spacings (mm)

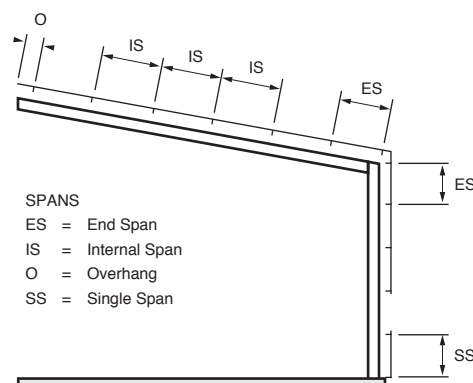
Type of Span	Thickness (mm)	BMT
	.42	.48
ROOFS		
Single Span	1800	2100
End Span	1800	2100
Internal Span	3000	3000
Unstiffened Eaves Overhang	300	300

Residential structures wind classification NI

Maximum Support Spacing has been determined by load tests and deflection in accordance with AS 1562-1 AS 4040 1 & 2 1992.

Wind Load Conversion

WIND CLASSIFICATION	REGION & CATEGORY
(Domestic)	(Commercial/Industrial)
N1 (W28)	Reg A, Cat 3
N2 (W33)	Reg A, Cat 2.5 - Reg B, Cat 3
N3 (W41)	Reg A, Cat 2 - Reg B, Cat 2.5
N4 (W50)	Reg B, Cat 2



Phone 03 5274 6222 www.jhstephenson.com



Established 1923

Hi-DEK 680 Roof Cladding



.42 Bmt Hi-DEK 680

Limit State Wind Pressure Capacities (kpa)

Screw to each Rib										
SPAN TYPE	LIMIT STATE	SPAN								
		900mm	1200mm	1500mm	1800mm	2100mm	2400mm	2700mm	3000mm	3300mm
SINGLE	Serviceability	1.67	1.35	1.06	0.84	0.71	0.62	0.54		
	Strength	3.57	3.08	2.63	1.68	1.43	1.24	1.04		
EQUAL	Serviceability	4.02	3.25	2.55	2.03	1.70	1.50	1.30	1.10	
	Strength	4.76	4.1	3.6	2.98	2.55	2.2	1.85	1.55	
INTERNAL	Serviceability	4.17	3.38	3.65	2.11	1.77	1.56	1.35	1.14	
	Strength	5.41	4.66	3.98	3.73	3.19	2.75	2.31	1.94	

.48 Bmt Hi-DEK 680

Limit State Wind Pressure Capacities (kpa)

Screw to each Rib										
SPAN TYPE	LIMIT STATE	SPAN								
		900mm	1200mm	1500mm	1800mm	2100mm	2400mm	2700mm	3000mm	3300mm
SINGLE	Serviceability	2.01	1.62	1.24	1.00	0.83	0.71	0.62		
	Strength	4.57	3.90	3.23	2.03	1.74	1.46	1.21		
EQUAL	Serviceability	4.85	3.90	3.00	2.41	2.00	1.70	1.50	1.20	
	Strength	6.09	5.20	4.30	3.61	3.10	2.60	2.15	1.70	
INTERNAL	Serviceability	5.04	4.05	3.12	2.50	2.08	1.77	1.56	1.25	0.97
	Strength	6.92	5.91	4.89	4.51	3.88	3.25	2.69	2.13	1.54

The values in the above tables have been prepared based on steel supports with a minimum thickness of 1.5mm, G450.

Hi-DEK 680 cladding fixed with 14 – 10 x 75mm self drilling screws fixed every rib.

Compliance

Wind pressure capacity tables have been determined by full scale testing in accordance with AS 1562.1 and AS 4040.1 & 2 1992.

Non-Cyclonic areas.

The pressure considered is based on buildings up to 10m high in Region B, Terrain Category 3, $M_3=0.85$, $M_1=1.0$, $M=1.0$ with the following assumptions made:

Roofs

$C_{pi} = +0.20$, $C_{pe} = -0.90$, $K_1 = 2.0$ for single and end spans, $K_1 = 1.5$ for internal spans.

Walls

$C_{pi} = +0.20$, $C_{pe} = -0.65$, $K_1 = 2.0$ for single spans, $K_1 = 1.5$ for internal spans.

Maximum Roof Length (m)

Degree	Rainfall Capacity mm/h					
	150	200	250	300	350	400
1	293	219	176	146	125	110
2	414	310	248	207	177	155
3	507	380	304	253	217	190
4	585	439	351	293	251	219
5	654	491	393	327	280	245

1. Minimum recommended slope is 1°. Sheet lengths

Note: Hi-DEK 680 is Cyclonic tested using Cyclon Assembly Screws and Washers. Load Table available.



Hi-DEK 680 Roof Cladding



Fixing Details

Crest Fix

Fasteners every Rib

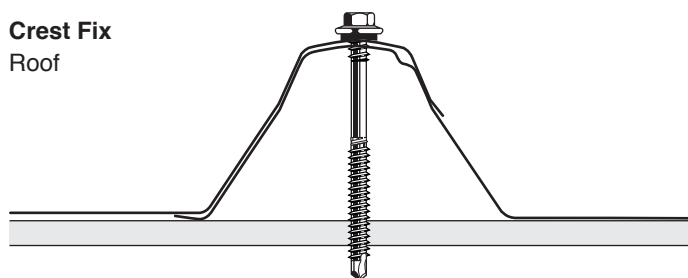


Valley Fix

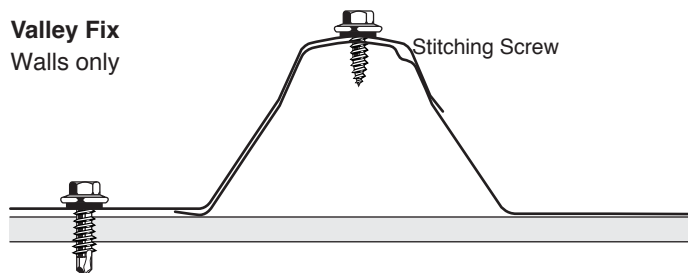
3 Fasteners



Crest Fix Roof



Valley Fix Walls only



Hi-DEK 680 Roofing

Should be laid square to the gutter line and into the prevailing wind. The sheet is fastened at every rib. Sheets must be turned up at the apex and down at the gutter line. Side lap fastener is recommended mid span when span exceeds 1200mm.

Hi-DEK 680 is suitable for warehouse roofing. It is easily installed and has good spanning capability. Side lap fastener is recommended mid span when the span exceeds 1200mm.

Design Considerations

The recommended minimum pitch is 1 degree. For long run roofing the pitch should be increased and spans considered.

Length

- Hi-DEK is custom cut to your exact length.
- The maximum length for pierce fixed roofing is 23.7m before an expansion joint is required. This length is recommended for light colours only. Dark colours should not exceed 16.0m because of increased thermal expansion.

Foot Traffic

- Always walk over purlins and place your foot print in the pan only. To avoid sheet damage don't stand on ribs.

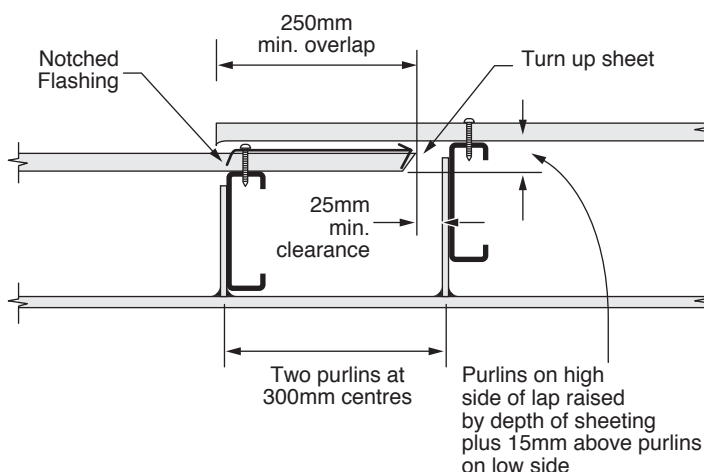
Handling On Site

- Delivery to site arrangements to be the responsibility of the customer.
- Sheets should be kept dry and clear of the ground.
- When handling sheets use dry, clean gloves and don't drag sheets over each other.

Cutting

- It is recommended to cut sheets with tin snips or a nibbler. Don't use an abrasive disc cutter.

Expansion Joint



Fasteners

	Fixing to Steel	Fixing to Timber
Crest Fixing Roof Neo Washer	Teks 14 - 10 x 75mm	Type 17 14 - 10 x 90mm
Walls Neo Washer	10 - 16 x 16 Tekes	12 x 25 Type 17
Side Lap	10 - 16 x 16 Tekes	10 - 16 x 16 Tekes

