

**VARYDEK™**



**Multiple Width | High Strength | Corrosion Resistance | Leak-proof Performance**

  
**TATA BLUESCOPE  
STEEL**



VARYDEK™ is an innovative subtle square fluted steel cladding which is being used as a versatile roofing and wall cladding profile for Industrial, Infrastructure, Commercial and Residential projects.

#### Available in Multiple Widths

The profile is available in multiple widths and is manufactured from high strength steel with intermittent ribs for improved spanning capability. Standard width offered are 740 mm and 1000 mm.

#### Proven and Tested Profile

VARYDEK™ comes with return leg which provides extra support at the side laps of panels and assures weather tightness with specially engineered anti-capillary grooves. Troughed stiffeners in the valleys of profile prevents oil canning effect in larger spans, withstands better roof traffic.

#### Long Lasting

VARYDEK™ is manufactured from aluminium-zinc alloy coated steel that offers excellent corrosion resistance and lasts up-to four times more than ordinary zinc coated steel profiles.

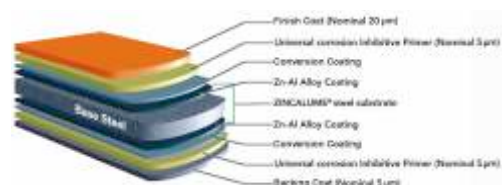
#### Improved Thermal Performance

VARYDEK™ comes with THERMATECH™ Solar Reflectance Technology that lowers surface temperature by absorbing lesser heat from the sun. It keeps both roofs and buildings cooler at reduced energy costs.

#### Material Specification

VARYDEK™ is manufactured from COLORBOND® XRW steel, high tensile steel with minimum 550 MPa yield strength, metallic hot-dipped coated with Al-Zn alloy (55% Aluminium, 43.5% Zinc, 1.5% Si ) as per AS1397/IS15961 standards and ZINCALUME® AZ150 (min. 150 g/m<sup>2</sup> total on both sides) with Super Durable Polyester COLORBOND® XRW steel\* quality paint system of approved colour, suitable for exterior application conforming to AS/NZS 2728 type-4 / IS15965 class 3 of Tata BlueScope Steel make. The sheets have a total coating thickness of 35 microns, super durable polyester COLORBOND® XRW quality paint system of 20 microns on exposed surface and 5 micron reverse polyester coat on back surface and over 5 micron primer coat on both surfaces. The paint system is made of stable resin & inorganic pigments for paint durability and is lead free, making it suitable for rainwater harvesting. The steel sheets have a brand marking of the coated steel manufacturer (product details, date, mfg name, etc) on the back side at regular intervals confirming genuineness of the material.

\*Standard offering includes COLORBOND® XRW steel but other options like COLORBOND® Ultra steel, COLORBOND® XPD steel and COLORBOND® Metallic steel can also be used after consultation from Tata BlueScope Steel authorities.



Cross Sectional View of COLORBOND® steel



### Profile

VARYDEK™ is available with a 740 mm and 1000 mm wide coverage option with nominal 28.5 mm deep ribs along with subtle square fluting at nominal 185 mm & 200 mm centre-to-centre respectively. The end ribs are designed for anti-capillary action, to avoid seepage of water through the lateral overlap.

### Maximum Support Spacing (in mm)

The maximum recommended support spacings are based on tests conducted in accordance with AS1562.1-1992, AS4040.1-1992 & AS4040.2-1992. Roof spans consider both resistance to wind pressure and light roof traffic (traffic arising from incidental maintenance). Wall spans consider resistance to wind pressure only. The pressure considered (in accordance with IS 875.3) is based on buildings up to 10m high, Zone 3 (Basic wind speed  $V_b = 47$  m/s), Class A, Terrain category 3,  $K_1 = 1.0$ ,  $K_2 = 0.91$ ,  $K_3 = 1.0$ , with the following assumptions made.

### Roofs

$C_{pe} = -1.20$  (internal cladding spans)  
 $C_{pe} = -2.0$  (single and end cladding spans)  
 $C_{pi} = +0.2$

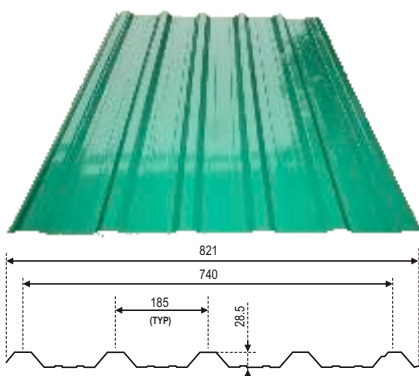
### Walls:

$C_{pe} = -0.80$  (internal cladding spans)  
 $C_{pe} = -1.20$  (single and end cladding spans)  
 $C_{pi} = +0.2$

These spacings may vary for particular projects, depending on specific structure characteristics.

Maximum Allowable Support Spacing (in mm)				
Type of Span	Roof Application		Wall Application	
	0.42	0.45	0.42	0.45
Single Span	850	950	1300	1700
End Span	1150	1200	1800	2450
Internal Span	1500	1750	2500	2850
Unstiffed Overhang	100	150	100	150

VARYDEK™ 740



VARYDEK™ 1000

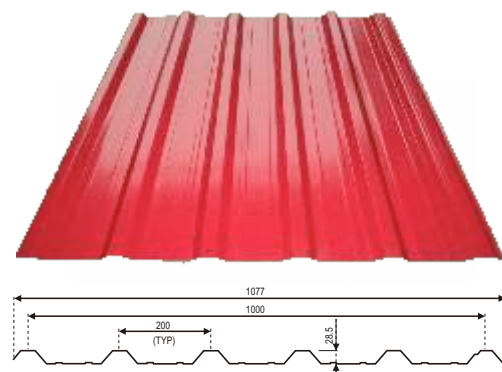


Table 1 - For VARYDEK™ 740

BMT/Base Metal Thickness (in mm)	0.42		0.45		0.50	
FINISH	ZINCALUME®	COLORBOND®	ZINCALUME®	COLORBOND®	ZINCALUME®	COLORBOND®
Weight Per Area(Kg/Sq.m.)	4.39	4.46	4.69	4.76	5.19	5.26
Weight Per Unit Length(Kg/m)	3.25	3.30	3.47	3.53	3.84	3.89

Table 2 - For VARYDEK™ 1000

BMT/Base Metal Thickness (in mm)	0.42		0.45		0.50	
FINISH	ZINCALUME®	COLORBOND®	ZINCALUME®	COLORBOND®	ZINCALUME®	COLORBOND®
Weight Per Area(Kg/Sq.m.)	4.21	4.29	4.50	4.57	4.98	5.05
Weight Per Unit Length(Kg/m)	4.21	4.29	4.50	4.57	4.98	5.05

### VARYDEK™ 740: Limit state wind pressure capacities(KPa)

Span Type	Limit State	Span (mm)			
		900	1200	1500	1800
VARYDEK™ 740 - 0.42mm BMT (0.47mm TCT)					
End	Serviceability	6.92	3.20	1.65	-
	Strength*	10.58	6.06	4.00	-
Internal	Serviceability	12.63	5.72	2.98	1.68
	Strength*	10.85	6.30	4.11	2.88
VARYDEK™ 740 - 0.45mm BMT (0.50mm TCT)					
End	Serviceability	8.11	3.41	1.68	1.02
	Strength*	12.10	6.43	4.16	2.93
Internal	Serviceability	13.80	6.10	3.26	1.96
	Strength*	12.08	7.16	4.63	3.22
VARYDEK™ 740 - 0.50 mm BMT (0.55mm TCT)					
End	Serviceability	9.00	3.80	1.94	1.08
	Strength*	13.86	7.74	5.02	3.34
Internal	Serviceability	16.80	7.11	3.56	2.08
	Strength*	14.88	8.58	5.49	3.64

### VARYDEK™ 1000: Limit state wind pressure capacities(KPa)

Span Type	Limit State	Span (mm)			
		900	1200	1500	1800
VARYDEK™ 1000 - 0.42mm BMT (0.47mm TCT)					
End	Serviceability	7.18	2.98	1.54	-
	Strength*	9.84	5.54	3.56	-
Internal	Serviceability	12.86	5.68	2.88	1.70
	Strength*	9.52	5.37	3.50	2.34
VARYDEK™ 1000 - 0.45mm BMT (0.50mm TCT)					
End	Serviceability	7.68	3.19	1.62	1.02
	Strength*	10.67	6.02	3.82	2.66
Internal	Serviceability	14.51	5.89	3.08	1.84
	Strength*	10.80	6.18	4.01	2.70
VARYDEK™ 1000 - 0.50 mm BMT (0.55mm TCT)					
End	Serviceability	8.48	3.58	1.80	1.12
	Strength*	12.32	6.86	6.86	3.08
Internal	Serviceability	15.88	6.72	3.28	1.98
	Strength*	12.74	7.31	4.71	3.24

\*Non standard colours and sizes are also available on special request.

The above data has been derived from the tests conducted at our research centre and reproduction of the same in any form is strictly prohibited. The above weights are on effective width basis.

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#### Note:

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