

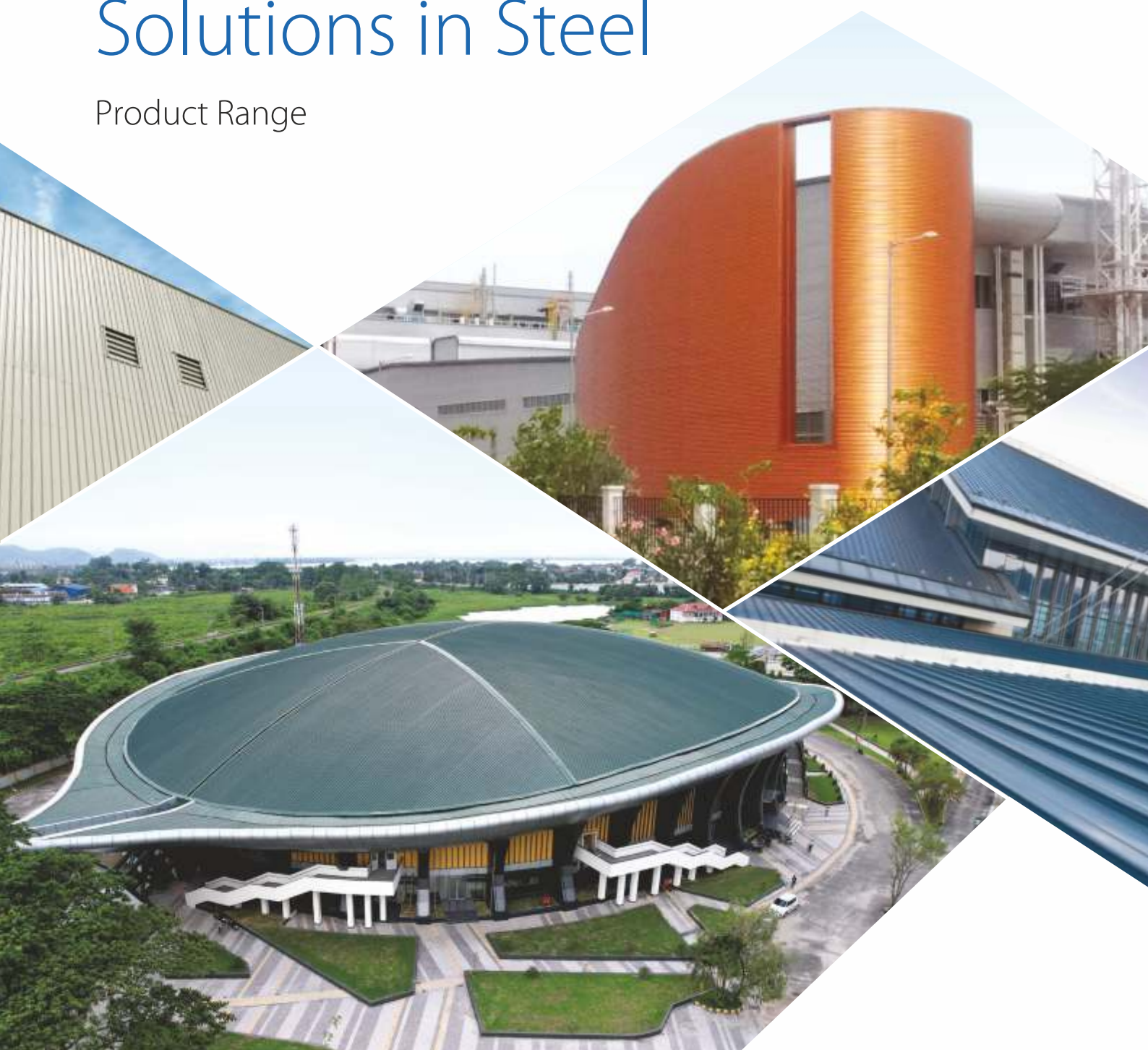


Global Excellence since 1857



# Architectural Solutions in Steel

Product Range



# Content

## Roof & Wall Cladding

Concealed Fixed

KLIP-LOK® 700

6



KLIP-LOK® 770

8

Standing Seam

FLEXLOK® 400

10



MR-24®

12

FORTISS 470™

14

Pierced Fixed

TRIMDEK® 1015

VARYDEK™ 1000

16



SPANDEK® 935

CUSTOM ORB® 990

18

PANELRIB® 1110

FLEXICLAD® 1110

20

BR-II™ 900

SHADOWRIB™ 900

22



## Decking System

SMARTDEK® 51

EZYDEK™ 44

24

## Structural System

Purlins & Girts

## Materials & Finishes

26





Tata BlueScope Steel is an equal joint venture between Tata Steel and BlueScope Steel in the field of coated steel, steel building solutions and related building products. The Company operates in the South Asian Association for Regional Cooperation (SAARC) region. Tata BlueScope Steel maintains high standards in the area of Safety, Health and Environment and has been certified by Underwriters Laboratory Inc. for ISO 9001: 2008 as well as by M/s. UL MSS India for the ISO 14001 & OHSAS 18001 certifications.



*Global Excellence since 1857*

LYSAGHT® offers a wide range of roofing and walling profiles, structural products and accessories. LYSAGHT® range of products are renowned for design flexibility and has shaped many architectural landmarks in its history of 150 years. The brand's product superiority is well complemented by its expertise in offering customised solutions for industrial, infrastructure and commercial segments in India. It has also established itself as an expert in re-roofing jobs. LYSAGHT® has provided solutions for an area of more than 35 million square meters since 2006 in India.

### Accolades



#### CT Award

"Best Product category"  
under Roofing and Cladding by  
Construction Times Awards 2017



#### CIDC Vishwakarma Award

"Achievement Award for Construction  
Health, Safety and Environment"  
by CIDC



#### EPC Award

"Most Trusted Roofing Brand"  
under Construction category by the 7<sup>th</sup>  
EPC World Awards

# Legacy of over 150 Years

## backed by Global Excellence



LYSAGHT® finds its roots way back in 1857. The brand has spread its wings across the globe; due to its commitment for quality products and putting customers at the centre of everything. Today LYSAGHT® offers a wide range of premium roof and wall cladding profiles, structural products and accessories for the industrial, infrastructure and commercial segments, with footprints in various architectural and heritage buildings worldwide.

## Unmatched Design and Engineering Capability

We derive our technical expertise from BlueScope Steel's experience across the globe. A strong in-house engineering team offers technical support that includes optimized design and detailing, through internationally acclaimed softwares. From design to erection our team of professionals ensure an architect's vision is put to reality.



## Global Benchmark in Safety & Construction Practices

When it comes to Safety; we are committed to Zero Harm; to people, plant and environment. We have clocked so far 2 million accident free man-hours (till March19). Our construction practices are governed by BlueScope Steel's best practices which are a global benchmark.



# Customer Centric Solutions

LYSAGHT® provides customer centric solutions with a wide product basket for diverse applications. Our on-time delivery promise is well augmented by multi-locational manufacturing units and an extensive sales network. With a focus on customer's success, we offer value-added services like construction, engineering and preventive maintenance support.



Valpoi Bus Stand, Goa

## State-of-art Manufacturing

The brand's product superiority is well complemented by its manufacturing expertise. World-class manufacturing facilities strategically located in Chennai, Pune, Bhiwadi, Jamshedpur in India and one in Sri Lanka, ensures on-time product delivery with consistency in quality.



On-site crimping, an Innovative approach to achieve operational and product excellence with cost optimisation

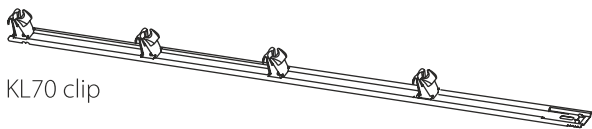
## Quality & Innovation

LYSAGHT® range of premium building products undergo several rigorous tests and proven processes such as pressure cladding test, multi loading test, water penetration test etc. at LYSAGHT® R&D center in Australia (NATA\* registered testing laboratory). With its expertise in construction & engineering, LYSAGHT® has provided roofing solutions for more than 35 million square meters within a span of 15 years in India and has been recognised as the most trusted roofing brand within the fraternity.

\*National Association of Testing Authorities

# KLIP-LOK® 700

## An advanced concealed fix roof cladding with pronounced ribs



### Profile

LYSAGHT KLIP-LOK® 700 is a concealed fixed cladding with an effective cover width of 700 mm, 43mm deep rib spaced at 233.3mm c/c along with micro-stiffener perpendicular to bold ribs for strength. Specially designed ribs with unique anti-capillary side lap, makes it leak proof roof slope of even upto 1° (1 in 50)

Steel Thickness (TCT)	0.47 mm	0.50 mm
Base metal thickness (BMT)	0.42	0.45
Total coated thickness (TCT)	0.47	0.50
Effective coverage width	700	700
Rib depth	43	43
(All dimensions are in mm)		
<b>Mass</b>	<b>ZINCALUME® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.64	4.95
Mass per unit length Kg/m	3.25	3.47
Coverage m <sup>2</sup> /tonne	215	201
<b>Mass</b>	<b>COLORBOND® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.72	5.04
Mass per unit length Kg/m	3.30	3.53
Coverage m <sup>2</sup> /tonne	211	198

LYSAGHT KLIP-LOK® has long been a design favourite, for prestigious commercial, industrial and architectural projects.

With a bold rib geometry rising from wide, flat pans, LYSAGHT KLIP-LOK® roof provides a strong visual statement on any building. Flat pans also mean the profile has excellent water carrying capacity and can be used on roof pitches as low as one degree\*. Installed using a proprietary concealed fixing system there are no exposed fasteners to spoil the long, straight clean lines of LYSAGHT KLIP-LOK® roof.

The use of concealed clip system ensures secure fastening to the purlin sub-structure, while allowing thermal expansion to be accommodated along the length of the sheet without compromising the weathertight properties of the KLIP-LOK® profile. The absence of screw penetrations also eliminates the possibility of water ingress around fasteners over the time.

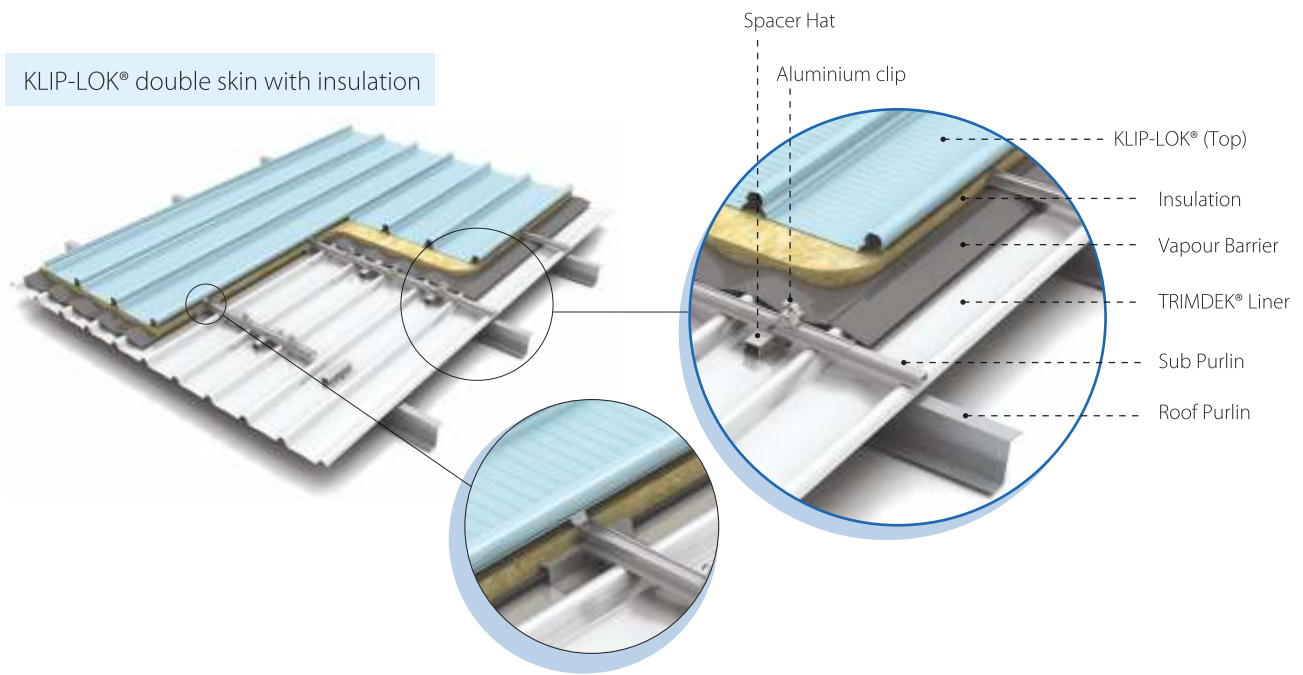
### Maximum allowable support spacings

Steel Thickness (TCT)	0.47 mm	0.50 mm
<b>Roof application</b>		
Single span	1420	1500
End span	1200	1400
Internal span	1500	1700
Overhang - Unstiffened	150	200
- Stiffened	450	500
<b>Wall application</b>		
Single span	2100	2250
End span	1500	1700
Internal span	1800	2000
Overhang	150	200
(All dimensions are in mm)		
<b>Roof pitch</b>		
Minimum recommended pitch	2°	
Grade of steel	G550 (550 MPa Yield strength)	
Coating class (min.)	AZ150	

Above spans are applicable up to wind speed of 44m/sec. Supports must be not less than 1 mm BMT. \*Please contact Tata BlueScope Steel office considering the above for designs.



Salcomp, Chennai



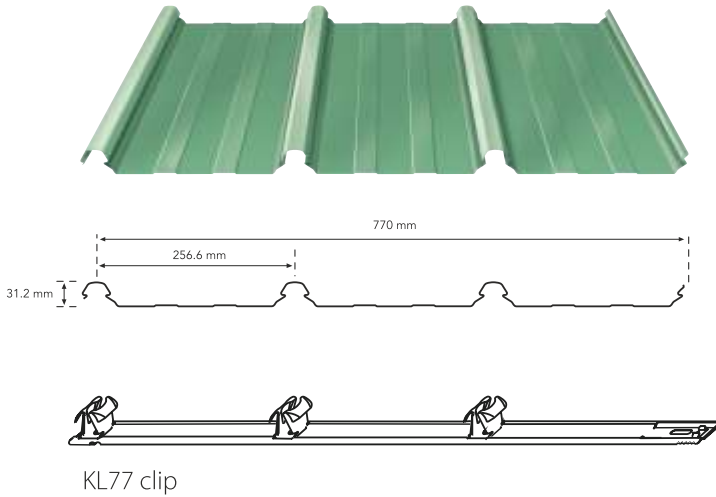
## Benefits

- Strongest profile with longer spanning capability
- No piercing, it is fixed/ locked with special clips hence no chance of roof leakage
- Fixed on specially designed clip which holds uplift pressure to the base purlin much easily and also takes care of thermal expansion and contraction
- On site roll forming facility eliminates step joint and end laps. In case of end laps, LOK-KLIP® is the perfect solution
- Specially designed ribs, with unique anti-capillary side lap, makes it leak proof roof slope of even upto 1° (1 in 50)
- Pre-crimping is possible to enable bull nose curve
- Is economical and fast to install
- Manufactured from high strength ZINCALUME® steel and or COLORBOND® steel



# KLIP-LOK® 770

## Widest Concealed Fixed Cladding



KLIP-LOK® 770 is a new generation of wide-cover concealed fixed cladding. It has a wide span and the best uplift performance.

### Profile

LYSAGHT KLIP-LOK® 770 is concealed fixed cladding with effective cover width of 770 mm, 31.5mm deep rib spaced at 256mm c/c along with two strengthening ribs parallel to bold ribs for strength. Specially designed ribs, with unique anti-capillary side lap, which makes it leak proof roof slope of even upto 1° (1 in 50)

KL77 clip

Maximum allowable support spacings		
Steel Thickness (TCT)	0.47 mm	0.50 mm
<b>Roof application</b>		
Single span	1000	1200
End span	1000	1300
Internal span	1300	1500
<b>Wall application</b>		
Single span	1500	1600
End span	1500	1600
Internal span	1800	2000
(All dimensions are in mm)		
<b>Roof pitch</b>		
Minimum recommended pitch	2°	
Grade of steel	G550 (550 MPa Yield strength)	
Coating class (min.)	AZ150	

Above spans are applicable up to wind speed of 39m/sec. Supports must be not less than 1 mm BMT. Please contact Tata BlueScope Steel office considering the above for designs.

Steel Thickness (TCT)	0.47 mm	0.50 mm
Base metal thickness (BMT)	0.42	0.45
Total coated thickness (TCT)	0.47	0.50
Effective coverage width	770	770
Rib depth	31.2	31.2
(All dimensions are in mm)		
<b>Mass</b>		<b>ZINCALUME® steel</b>
Mass per unit area Kg/m <sup>2</sup>	4.22	4.50
Mass per unit length Kg/m	3.25	3.47
Coverage m <sup>2</sup> /tonne	236	221
<b>Mass</b>		<b>COLORBOND® steel</b>
Mass per unit area Kg/m <sup>2</sup>	4.29	4.58
Mass per unit length Kg/m	3.30	3.53
Coverage m <sup>2</sup> /tonne	232	217





Shenzhen Airport Terminal, China

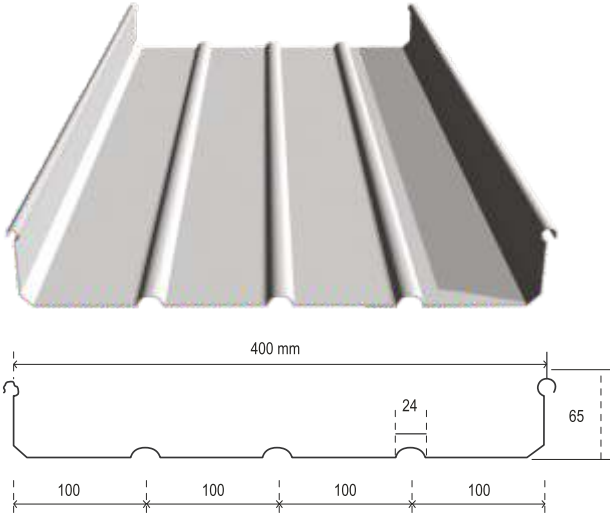


## Benefits

- Wide cover concealed fixed cladding system with no exposed fasteners for weather tight roofs
- Bold ribs make strong visual appeal
- Fixed on specially designed clip which holds uplift pressure on the base purlin much easily and allows thermal expansion and contraction
- Suitable for curve shape buildings
- Economical and quick to install
- Available with onsite mobile roll forming for even, long, uninterrupted and low roof pitch
- Appealing architectural appearance and multiple colour choices enable different design features
- Manufactured from G550 COLORBOND® steel or ZINCALUME® steel

# FLEXLOK® 400

## Concealed fixed standing seam roof system



LYSAGHT FLEX-LOK® concealed standing seam system is a roofing system with an innovative architectural appearance. It is available in steel or aluminum and provides a flexible design. It can be slope, curved or tapered to achieve various architectural requirements and provides architects with a more creative resource.

### Profile

LYSAGHT FLEX-LOK® standing seam profile comes with 400 mm effective cover width, three stiffener symmetrically spaced (100mm c/c) parallel to 65mm deep rib. The profile lapping is mechanically field seamed using electric steamer tool to achieve increased weatherability and greater resistance to wind uplift.

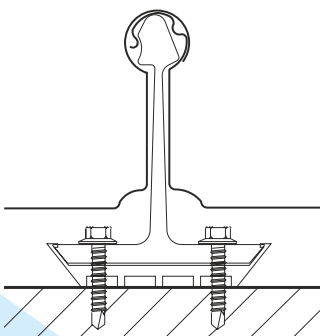
Note: FLEX-LOK® standing seam profile is also available in 300mm and 500mm wide profile.

Maximum allowable support spacings		
Steel Thickness (TCT)	0.55 mm	0.60 mm
<b>Roof application</b>		
End Zone (mm)	1200	1500
Internal Zone (mm)	1500	1800
(All dimensions are in mm)		
<b>Roof pitch</b>		
Minimum recommended pitch	2°	
Grade of steel	G300 (300 MPa Yield strength)	
Coating class (min.)	AZ150	

Note: FLEX-LOK® standing seam profile is tested at LYSAGHT® BlueScope R & D NATA approved Lab as well as IIT Chennai for wind uplift pressure ( strength and serviceability parameter)

Above spans are applicable up to wind speed of 44m/sec. Supports must be not less than 1 mm BMT. Please contact Tata BlueScope Steel office considering the above for designs.

Steel Thickness (TCT)	0.55 mm	0.60 mm
Base metal thickness (BMT)	0.50	0.55
Total coated thickness (TCT)	0.55	0.60
Effective coverage width	400	400
Rib depth	65	65
(All dimensions are in mm)		
<b>Mass</b>	<b>ZINCALUME® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	5.92	6.49
Mass per unit length Kg/m	2.37	2.60
Coverage m <sup>2</sup> /tonne	169	154
<b>Mass</b>	<b>COLORBOND® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	6.00	6.58
Mass per unit length Kg/m	2.40	2.63
Coverage m <sup>2</sup> /tonne	166.5	152



Panel Overlap



FLEX-LOK® Clip

### Insulated clip for Better thermal performance

The FLEX-LOK® profile panel is fixed to every purlin with a help of structural grade Aluminium clip with UPVC thermal pad at the bottom of the clip. The head of clips accurately matches the roof sheeting; ensuring the sheet slides freely during thermal movement.



Shardown Stadium, China

## Profile Shapes

### Concave

#### Min. Curve Radius

Steel - 8 m

Aluminium - 6 m



### Convex

#### Min. Curve Radius

Steel - 8 m

Aluminium - 4 m



### Tapered

#### Tapered width -

250 mm at one end

& upto 500 mm

at other end.

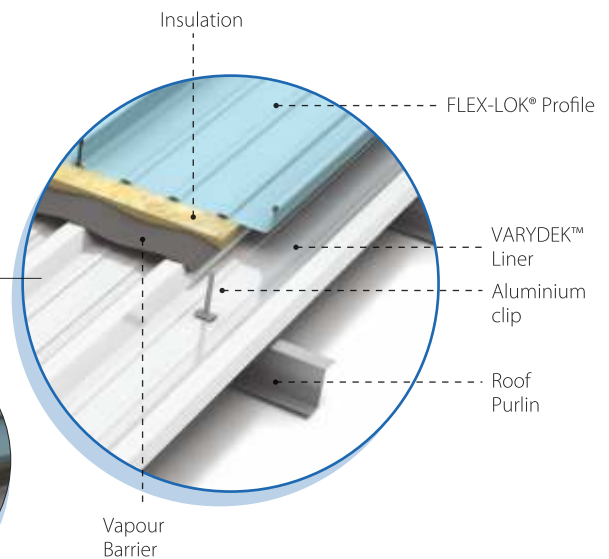
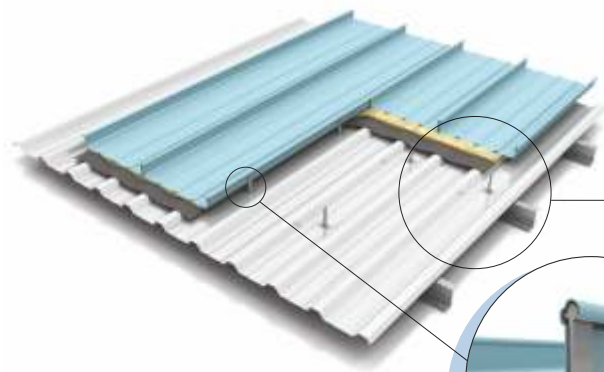


**Tapered length - 3500 mm (min.)**

## Benefits

- FLEX-LOK® system gives real design freedom and provides a choice of solutions for modern architectural requirement
- A specially designed, concealed clip system requires no through fasteners. This provides excellent weather and uplift resistance
- The original heat insulated clip allows for movement which results from the thermal effect. This minimizes the need for step expansion joints
- Specially engineered thermal pad, slides neatly onto base of the clip, which can reduce or eliminate thermal bridging effects
- Can be roll-formed on site to achieve extreme long length according to project requirements
- It can be used as single skin roofing as well as double skin roofing. (FLEX-LOK® made from Aluminium material require metal liner sheet)

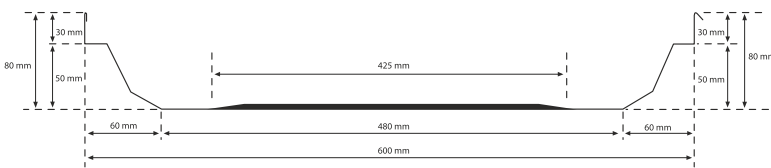
FLEX-LOK® double skin with insulation



Note: Sub purlin are not required for VARYDEK™ liner panel system

# MR-24®

## Standing seam roof system



Sheet overlapping technology

Steel Thickness (TCT)	0.65 mm	0.77 mm
Base metal thickness (BMT)	0.60	0.72
Total coated thickness (TCT)	0.65	0.77
Effective coverage width	600	600
Rib depth	50	50
(All dimensions are in mm)		
<b>Mass</b>	<b>ZINCALUME® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	5.97	7.12
<b>Mass</b>	<b>COLORBOND® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	6.05	7.20

Above spans are applicable up to wind speed of 44m/sec. Supports must be not less than 1 mm BMT. Please contact Tata BlueScope Steel office considering the above for designs.

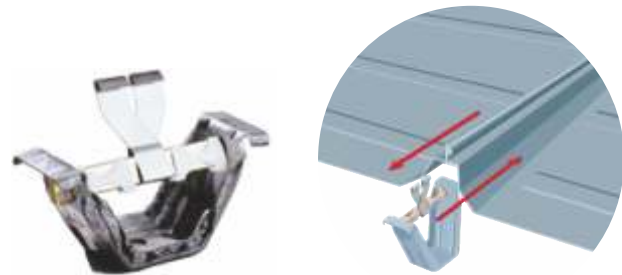
Roof pitch	
Minimum recommended pitch	1.2°
Grade of steel	G345 (345 MPa Yield strength)
Coating class (min.)	AZ150

The MR-24® roof system is one of the most timetested and widely used standing-seam roof system available. This record has been validated time and again by successful tests conducted in accordance with the most demanding & recognised specifications in the industry.

### Profile

MR-24® is a 360° standing seam roofing system. This profile has an effective width of 600 mm, with two major corrugations, 50 mm high (80 mm including seam.) The valley of the panel contains cross flutes of 430 mm length perpendicular to the major corrugations over the entire length of the panel.

### MR-24® Roof Clip



#### Allows roof movement

The roof clip is an "invisible component" that holds the standing seam roof panels to the supporting structural member.

Because metal roofs expand & contract with daily and seasonal temperature changes, the clip is carefully designed to provide a positive attachment allowing the roof to move freely in both directions. Without this mobility, the roof panels would tug and pull on the clip, a process that will eventually cut into the roof panels, pull out the fasteners or damage the clip, making the building vulnerable to leaks and wind damage.



KONE Elevators, Chennai

MR 24<sup>®</sup>  
comes with  
**10** yrs.  
**LEAK PROOF**  
**Warranty**

## Seaming Process



## Benefits

- MR-24<sup>®</sup> roof clip allows roof to expand and contract with changing temperatures, ensuring free movement of the clip, assuring a long term leak proof performance
- Pre-punched system does not require extensive field modifications and enables an error-free building
- Weather tight seams protect against leaks
- It is made from ZINCALUME<sup>®</sup> steel & COLORBOND<sup>®</sup> steel ensuring aesthetics with durability
- Slice support secures solid structures
- MR-24<sup>®</sup> have stronger fasteners that maintain credible strength
- Staggered panel splices prevent exposed seams
- MR-24<sup>®</sup> roof system's internal flange design conceals fasteners within the opening and eliminates leaks

# FORTISS 470™

## Standing seam roof system



The FORTISS 470™ is a new generation 360° beam locking roof system. This is specifically designed for large industrial, commercial and warehousing sectors looking for large spans, better performance, a quick turnaround and customization.

### Profile

FORTISS 470™ is a 360° standing seam roofing system. This profile has an effective width of 470mm, with two major corrugations, 74 mm high (85 mm including seam.) The valley of the panel contains cross flutes of 250 mm length perpendicular to the major corrugations over the entire length of the panel.

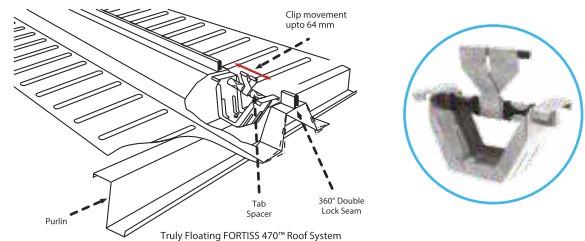
Steel Thickness (TCT)	0.55 mm	0.60 mm
Base metal thickness (BMT)	0.50	0.55
Total coated thickness (TCT)	0.55	0.60
Effective coverage width	470	470
Rib depth	74	74
(All dimensions are in mm)		
<b>Mass</b>	<b>ZINCALUME® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	5.211	5.712
<b>Mass</b>	<b>COLORBOND® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	5.288	5.789

Available in metal coated and colour coated steel

Roof pitch	
Minimum recommended pitch	2°
Grade of Steel (Yield Strength)	G300*
Coating Class	AZ 150

\*Also available in G340 Yield Strength

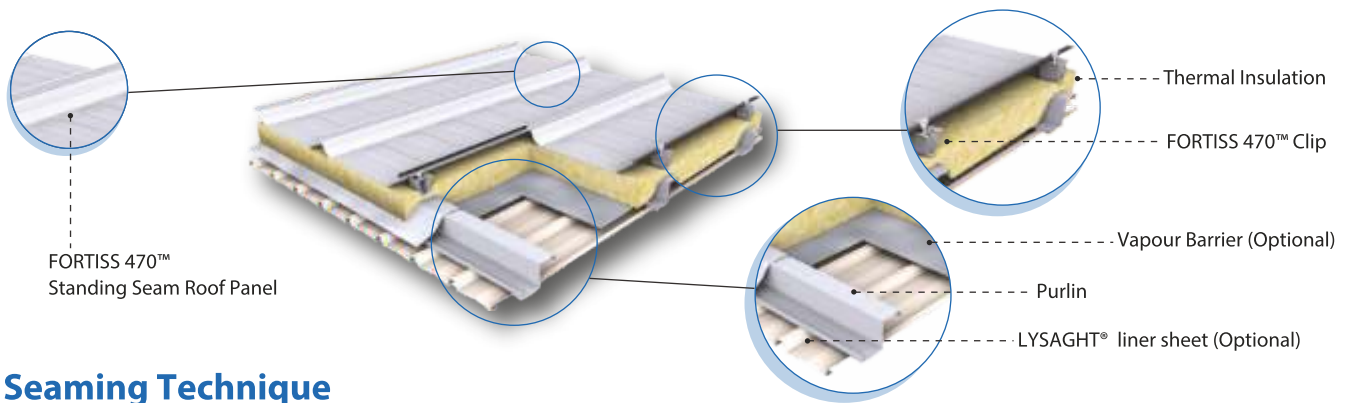
### FORTISS 470™ ROOF CLIP



Metal roof expands and contracts with daily and seasonal temperature changes. This roof clip is carefully designed to provide a positive attachment and allows the roof to move freely in both directions. Without this mobility, the roof panels would tug and pull on the clip, a process that will eventually cut into the roof panels, pull out the fasteners or damage the clip, causing the building to be vulnerable to leaks and wind damage.

### FORTISS 470™ Clip Advantages

- Allows FORTISS 470™ roof system to 'truly float'
- Excellent weather-tight performance
- Easy thermal expansion & contraction
- Zinc coated triangular bar provides smooth surface for tab movement



## Seaming Technique

First class seamer with advanced motor and tooling making excellent seaming and shortens the roof erection time.



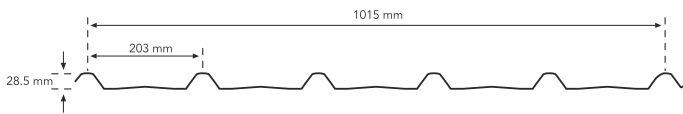
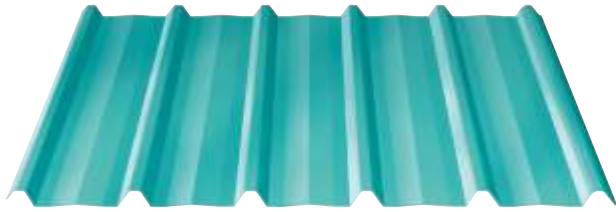
## Benefits

- FORTISS 470™ roof clip allows roof to expand and contract with changing temperatures, ensuring free movement of the clip
- Zero overlapping of sheets, provides leak-proof roof system and speeds up the installation process
- The product showcases improved anti-deformation performance.
- Containerized production ensures uniform quality even under unstable conditions
- Enables possibility of roof-top level roll-forming
- Best-in-class safety practices and unmatched construction capability

\*Terms & conditions apply

# TRIMDEK® 1015

## A versatile roofing and walling product



TRIMDEK® 1015 is modern ribbed roof and wall cladding profile with subtle fluting in the pans to provide strength and long spanning capabilities. It is ideal for industrial and commercial applications.

LYSAGHT TRIMDEK® can be curved by crimp curving process. It is available in both convex and concave shapes to provide versatility and creativity to building designs. The minimum radius of curvature must be at least 500 mm for convex and 500 mm for concave to underside or pan of sheep. Custom-cut lengths are available in any measurement of maximum transportable length.

Maximum allowable support spacings		
Steel Thickness (TCT)	0.47 mm	0.50 mm
<b>Roof application</b>		
Single span	1090	1300
End span	1280	1400
Internal span	1600	1800
Overhang - Unstiffened	150	200
- Stiffened	300	350
<b>Wall application</b>		
Single span	1780	1900
End span	1600	1800
Internal span	1900	2300
Overhang	150	200
(All dimensions are in mm)		
<b>Roof pitch</b>		
Sheet length without end lap	3°	
Sheet length with end lap	5°	
Concave sprung curve	min 40 m	
Coating class (min.)	G550 (550 MPa Yield strength)	
Coating class (min.)	AZ150	

Above spans are applicable up to wind speed of 44m/sec. Supports must be not less than 1 mm BMT. Please contact Tata BlueScope Steel office considering the above for designs.

### Profile

LYSAGHT TRIMDEK® 1015 roof and wall cladding profile has effective coverwidth of 1015 mm, with five major corrugation, 28.5 mm height, spaced at 203mm centre with subtle square fluting in the pan. The end rib has an anti-capillary groove and return leg.

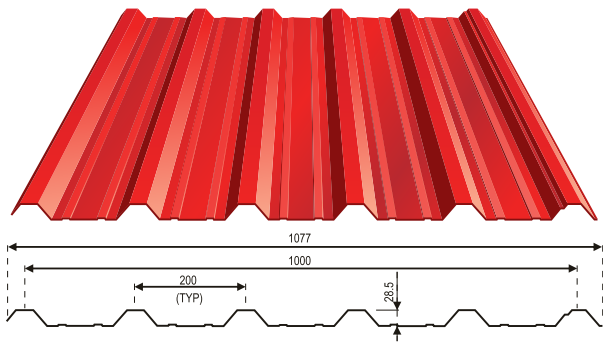
Steel Thickness (TCT)	0.47 mm	0.50 mm
Base metal thickness (BMT)	0.42	0.45
Total coated thickness (TCT)	0.47	0.50
Effective coverage width	1015	1015
Rib depth	28.5	28.5
(All dimensions are in mm)		
<b>Mass</b>	<b>ZINCALUME® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.152	4.44
Mass per unit length Kg/m	4.214	4.50
Coverage m <sup>2</sup> /tonne	237	225
<b>Mass</b>	<b>COLORBOND® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.22	4.51
Mass per unit length Kg/m	4.29	4.57
Coverage m <sup>2</sup> /tonne	236	221

### Benefits

- TRIMDEK® is our most cost effective roofing and walling profile
- Strong and wider coverage, which makes it economical for all type of buildings
- Troughed valleys to enhance easy water flow, roof traffic and to avoid oil canning effect
- Long roof runs at shallow roof slope (min 3 degree)
- Specially designed ribs, with unique anti-capillary side lap, which makes it leak proof
- Curved roof : it is possible only in crimping option
- Very good rainfall capacity
- Easy to install on roof and wall cladding application



# VARYDEK™ 1000



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

## Profile

VARYDEK™ is available with a 1000 mm wide coverage option with nominal 28.5 mm deep ribs along with subtle square fluting at nominal 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 allowable support spacings		
Steel Thickness (TCT)	0.47 mm	0.50 mm
<b>Roof application</b>		
Single span	1200	1400
End span	1400	1500
Internal span	1700	2100
Overhang - Unstiffened	150	200
- Stiffened	300	350
<b>Wall application</b>		
Single span	1800	1900
End span	2000	2100
Internal span	2300	2600
Overhang		
(All dimensions are in mm)		
<b>Roof pitch</b>		
Minimum recommended pitch	5°	
Grade of steel	G550 (550 MPa Yield strength)	
Coating class (min.)	AZ150	

Steel Thickness (TCT)	0.47 mm	0.50 mm
Base metal thickness (BMT)	0.42	0.45
Total coated thickness (TCT)	0.47	0.50
Effective coverage width	1000	1000
Rib depth	28.5	28.5
(All dimensions are in mm)		
<b>Mass</b>	<b>ZINCALUME® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.21	4.50
Mass per unit length Kg/m	4.21	4.50
Coverage m <sup>2</sup> /tonne	237.3	222
<b>Mass</b>	<b>COLORBOND® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.29	4.574
Mass per unit length Kg/m	4.29	4.574
Coverage m <sup>2</sup> /tonne	233	218

Above spans are applicable up to wind speed of 44m/sec. Supports must be not less than 1 mm BMT. Please contact Tata BlueScope Steel office considering the above for designs.



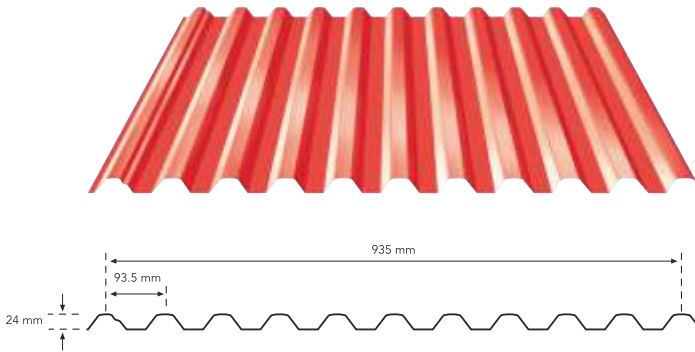
Kirloskar Oil Engines, Maharashtra

## Benefits

- Stronger profile having two strengthening ribs at the pan
- Long roof runs at shallow roof slope (min 3 degree)
- Specially designed ribs, with unique anti-capillary side lap, makes it leak proof
- Curved roof : it is possible only in crimping option
- Very good rainfall capacity
- Easy to install on roof and wall cladding application

# SPANDEK® 935

## A modern, simple square-corrugated roof and wall cladding



### Profile

LYSAGHT SPANDEK® 935 roof and wall cladding profile has an effective cover width of 935 mm, with eleven major corrugations, 24mm high rib spaced at 93.5mm c/c. The end rib has an anti-capillary groove and return leg.

Steel Thickness (TCT)	0.47 mm	0.50 mm
Base metal thickness (BMT)	0.42	0.45
Total coated thickness (TCT)	0.47	0.50
Effective coverage width	935	935
Rib depth	24	24
(All dimensions are in mm)		
<b>Mass</b>	<b>ZINCALUME® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.51	4.81
Mass per unit length Kg/m	4.21	4.51
Coverage m <sup>2</sup> /tonne	221	207
<b>Mass</b>	<b>COLORBOND® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.61	4.91
Mass per unit length Kg/m	4.31	4.59
Coverage m <sup>2</sup> /tonne	217	203

### Benefits

- Bolder contemporary corrugated profile
- Excellent for withstanding high wind load, snow load or impact load i.e. foot traffic
- Shorter roof runs, steeper roof slopes (5 deg)
- Suitable for Curved roofs – larger spring curved roofs (30- 60 m with 1.2 m purlin spacing)
- Good rainfall capacity
- Longer Spanning capability in comparison to any conventional system in the market

SPANDEK® 935 is a tough, symmetrical, trapezoidal ribbed roofing and wall cladding profile, making it ideal for projects with a modern appearance. LYSAGHT SPANDEK® capitalises on buildings that require long spans, as it permits wider purlin spacings and utilizes fewer fasteners. Its rigid trapezoidal ribs make it an excellent choice among designers for contemporary roof and wall cladding designs.

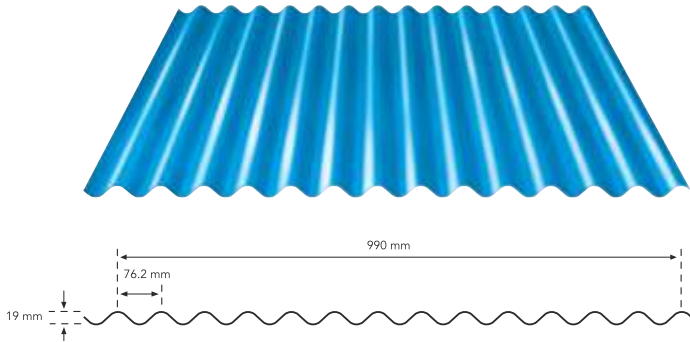
It can be sprung curved if the curvature falls between 20m and 60m. When used for wall cladding, the trapezoidal ribs can run vertically or horizontally. Available in long length, it is governed only by transportation considerations. The profile combines strength with lightness, rigidity and economy.

<b>Maximum allowable support spacings</b>		
Steel Thickness (TCT)	0.47 mm	0.50 mm
<b>Roof application</b>		
Single span	800	900
End span	1200	1500
Internal span	1700	2000
Overhang - Unstiffened	250	300
- Stiffened	500	600
<b>Wall application</b>		
Single span	1500	1700
End span	1300	2000
Internal span 1800	1900	2500
Overhang	300	350
(All dimensions are in mm)		
<b>Roof pitch</b>		
Sheet length without end lap	3°	
Sheet length with end lap	5°	
Convex sprung curve	min 20 m	
Concave sprung curve	min 20 m	
Coating class (min.)	G550 (550 MPa Yield strength)	

Note: Above spans are applicable up to wind speed of 44m/sec. Supports must be not less than 1 mm BMT. Please contact Tata BlueScope Steel office considering the above for designs.

# CUSTOM ORB® 990

## The shape that built a nation



### Profile

LYSAGHT CUSTOMORB® 990 roof and wall cladding has an effective cover width of 990 mm, with fourteen smooth sinusoidal corrugation, 19mm rib height spaced at 76.2mm c/c. The end rib shall have anti-capillary groove.

Steel Thickness (TCT)	0.47 mm	0.50 mm
Base metal thickness (BMT)	0.42	0.45
Total coated thickness (TCT)	0.47	0.50
Effective coverage width (mm)	990	990
Rib depth (mm)	19	19
(All dimensions are in mm)		
<b>Mass</b>	<b>ZINCALUME® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.26	4.55
Mass per unit length Kg/m	4.21	4.50
Coverage m <sup>2</sup> /tonne	234	219
<b>Mass</b>	<b>COLORBOND® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.33	4.62
Mass per unit length Kg/m	4.29	4.57
Coverage m <sup>2</sup> /tonne	230	215

CUSTOM ORB® 990 is a tough and corrugated profile that offers flexibility of design for roof and wall cladding application for industrial, commercial, residential and public buildings. LYSAGHT CUSTOM ORB® can either be used as typical, straight or pitched roof or can be sprung curved between the radius of 12 m to 35 m for convex curvature, and radius of 12 m to 35 m for concave curvature. When used in wall applications, LYSAGHT CUSTOM ORB® can either run vertically or horizontally, Available in long lengths, it is governed only by transportation considerations.

### Maximum allowable support spacings

Steel Thickness (TCT)	0.47 mm	0.50 mm
<b>Roof application</b>		
Single span	690	750
End span	950	1100
Internal span	1200	1400
Overhang - Unstiffened	150	200
- Stiffened	250	300
<b>Wall application</b>		
Single span	1000	1100
End span	1000	1250
Internal span	1300	1500
Overhang	200	250
(All dimensions are in mm)		
<b>Roof pitch</b>		
Minimum recommended pitch	7°	
Convex sprung curve	min 12 m	
Concave sprung curve	min 12 m	
Grade of steel	G550 (550 MPa Yield strength)	
Coating class (min.)	AZ150	

Note: For smooth curve requirements, it recommended to use 300MPa Yield strength ZINCALUME® / COLORBOND® steel sheets.

Above spans are applicable up to wind speed of 44m/sec. Supports must be not less than 1 mm BMT. Please contact Tata BlueScope Steel office considering the above for designs.

### Benefits

- Product especially suited for Contemporary buildings
- Smooth sinusoidal shape preferred for superior aesthetics
- Short Roof Run, Steep roof slopes (7 degree and above)
- CUSTOM ORB® can be curved smoothly for modern & stylish architectural designs. It can be pre-curved in the factory by a machine with a minimum radius of 500 mm
- Can be used for wall cladding applications in horizontal direction
- G300 has a gentle curve in it's shape. The extra ductility of LYSAGHT CUSTOM ORB® allows easy curving without distortion of the profile, and without damage to the finish

# PANELRIB® 1110

## Wall Cladding and Ceiling Application



PANELRIB® 1110 is an attractive, slightly fluted wall and ceiling cladding profile suitable for many applications where a flat sheet would not be normally considered. Its longitudinal flutes provide rigidity and strength along the length of the sheet while retaining full flexibility across the width.

### Profile

PANELRIB® 1110 is 1110 mm wide coverage profile with nominal 3.5 mm deep rib with pitch of nominal 50.5 mm centre to centre distance.

Steel Thickness (TCT)	0.47 mm	0.50 mm
Base metal thickness (BMT)	0.42	0.45
Total coated thickness (TCT)	0.47	0.50
Effective coverage width	1110	1110
Rib depth	3.5	3.5
(All dimensions are in mm)		
<b>Mass</b>	<b>ZINCALUME® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	3.80	4.05
Mass per unit length Kg/m	4.21	4.50
Coverage m <sup>2</sup> /tonne	262	246
<b>Mass</b>	<b>COLORBOND® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	3.86	4.14
Mass per unit length Kg/m	4.29	4.58
Coverage m <sup>2</sup> /tonne	258	242

Maximum allowable support spacings		
Steel Thickness (TCT)	0.47 mm	0.50 mm
<b>Wall application</b>		
Single span	900	1000
End span	900	1000
Internal span	1150	1150
Overhang		
(All dimensions are in mm)		
Grade of steel	G550 (550 MPa Yield strength)	
Coating class (min)	AZ150	

Above spans are applicable up to wind speed of 44m/sec. Supports must be not less than 1 mm BMT. Please contact Tata BlueScope Steel office considering the above for designs.

### Benefits

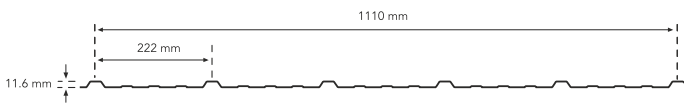
- Slightly fluted panel gives an attractive look
- Lightest wall cladding for interior and exterior application
- Provides easy solution for false ceiling and wall partition
- Panels can be installed in horizontal as well as in vertical direction
- Manufactured from high strength ZINCALUME® steel or COLORBOND® steel



BRTS Bus-Stop, Ahmedabad

# FLEXICLAD® 1110

## Versatile Steel Wall Cladding



Steel Thickness (TCT)	0.47 mm	0.50 mm
Base metal thickness (BMT)	0.42	0.45
Total coated thickness (TCT)	0.47	0.50
Effective coverage width	1110	1110
Rib depth	11.6	11.6
(All dimensions are in mm)		
<b>Mass</b>	<b>ZINCALUME® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	3.80	4.05
Mass per unit length Kg/m	4.21	4.50
Coverage m <sup>2</sup> /tonne	262	246
<b>Mass</b>	<b>COLORBOND® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	3.876	4.14
Mass per unit length Kg/m	4.29	4.58
Coverage m <sup>2</sup> /tonne	258	242

FLEXICLAD® 1110 is designed to provide an aesthetic and economical solution for wall cladding not only for commercial application, but also for residential and industrial application.

### Profile

LYSAGHT FLEXICLAD® 1110 is 1100 mm wide coverage profile with nominal 11.6 mm deep ribs at nominal 222 mm centre-to-centre with three stiffeners in between the ribs. The end ribs are designed for anti-capillary action, to avoid any seepage of water through the lateral overlap.

Maximum allowable support spacings		
Steel Thickness (TCT)	0.47 mm	0.50 mm
<b>Wall application</b>		
Single span	1060	1150
End span	1260	1500
Internal span	1500	1650
Overhang		
(All dimensions are in mm)		
Grade of steel	G550 (550 MPa Yield strength)	
Coating class (min)	AZ150	

Above spans are applicable up to wind speed of 44m/sec. Supports must be not less than 1 mm BMT. Please contact Tata BlueScope Steel office considering the above for designs.



Ador Welding Limited, Maharashtra

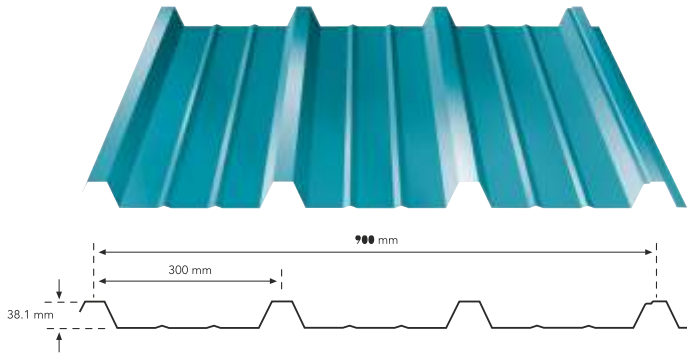
### Benefits

- Attractive multi-ribbed profile
- Covers very wide surface area
- Quick and easy to install
- Available in ZINCALUME® steel and an attractive range of colours in COLORBOND® steel
- Suitable for wall cladding in industrial, commercial and residential building, as well as for garages, screens and fascias

# BR-II™ 900



## The Strongest Roofing Profile



BR-II™ 900 is the strongest fastened roof system in the industry. It is weather-tight roofing system that is economical to install and maintain. It is ideal for industrial and commercial applications.

### Profile

LYSAGHT® BR-II™ 900 roof profile comes with an effective cover width of 900 mm, with four major corrugation, 38.1 mm deep rib spaced at 300mm c/c with two stiffeners in the pan. The end rib has anti-capillary groove and return leg.

Maximum allowable support spacings		
Steel Thickness (TCT)	0.47 mm	0.50 mm
<b>Roof application</b>		
Single span	1300	1500
End span	1500	1700
Internal span	2000	2300
Overhang - Unstiffened	150	200
- Stiffened	300	350
<b>Wall application</b>		
Single span	1900	1950
End span	2100	2250
Internal span	2500	2800
Overhang		
(All dimensions are in mm)		
<b>Roof pitch</b>		
Sheet length without end lap		3°
Sheet length with end lap		5°
Coating class (min.)	G550 (550 MPa Yield strength)	

Steel Thickness (TCT)	0.47 mm	0.50 mm
Base metal thickness (BMT)	0.42	0.45
Total coated thickness (TCT)	0.47	0.50
Effective coverage width	900	900
Rib depth	38.1	38.1
(All dimensions are in mm)		
<b>Mass</b>	<b>ZINCALUME® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.36	4.65
Mass per unit length Kg/m	3.92	4.19
Coverage m <sup>2</sup> /tonne	229	214
<b>Mass</b>	<b>COLORBOND® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.43	4.73
Mass per unit length Kg/m	3.99	4.26
Coverage m <sup>2</sup> /tonne	225	211

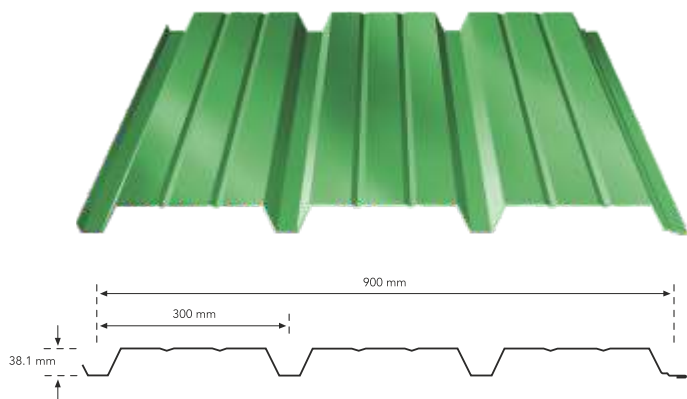
Above spans are applicable up to wind speed of 44m/sec. Supports must be not less than 1 mm BMT. Please contact Tata BlueScope Steel office considering the above for designs.

## Benefits

- Strongest trapezoidal profile - Best suited for Cyclonic areas
- Prominent Anti-capillary groove, excellent for leak proof performance. The groove can also be used for sealant placement to ensure weather tightness
- Factory-slotted holes allow roof panels to move with thermal expansion and contraction forces without tearing holes in the panels at fasteners locations ( only supply on request)
- Pre-punched to assure proper fit and alignment of each panel joint ensuring weather tightness
- FM Approved profile

# SHADOWRIB™ 900

## Matching Strength with Aesthetics



SHADOWRIB™ 900 is the most preferred walling system when it comes to matching strength with aesthetics. LYSAGHT® SHADOWRIB™ 900 walling profile is engineered to take high wind load and pressure. It offers features that make it the strongest walling system. Panels are 900 mm in width and up to 12 meters in length so wall erection occurs quickly even on large buildings.

### Profile

LYSAGHT® SHADOWRIB™ 900 wall cladding profile comes with an effective cover width of 900 mm, with four major corrugations, 38.1 mm deep rib spaced at 300mm c/c with two stiffeners in the pan. The one lap side (edge) is hemmed – helps for fixing the fastener at the valley and also helps in improving aesthetics.

Maximum allowable support spacings		
Steel Thickness (TCT)	0.47 mm	0.50 mm
<b>Wall application</b>		
Single span	1300	1450
End span	1500	1600
Internal span	1800	1900
Overhang		
(All dimensions are in mm)		
Grade of steel	G300 (300 MPa Yield strength)	
Coating class (min.)	AZ150	

Above spans are applicable up to wind speed of 44m/sec. Supports must be not less than 1 mm BMT. Please contact Tata BlueScope Steel office considering the above for designs.

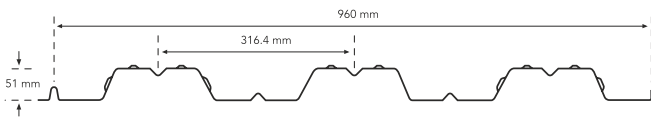
Steel Thickness (TCT)	0.47 mm	0.50 mm
Base metal thickness (BMT)	0.42	0.45
Total coated thickness (TCT)	0.47	0.50
Effective coverage width	990	900
Rib depth (mm)	38.1	38.1
(All dimensions are in mm)		
<b>Mass</b>	<b>ZINCALUME® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.20	4.48
Mass per unit length Kg/m	3.77	4.03
Coverage m <sup>2</sup> /tonne	238	223
<b>Mass</b>	<b>COLORBOND® steel</b>	
Mass per unit area Kg/m <sup>2</sup>	4.26	4.55
Mass per unit length Kg/m	3.84	4.10
Coverage m <sup>2</sup> /tonne	234	219

## Benefits

- Strongest wall cladding profile, designed to take heavy lateral load and accidental impacts
- Wide pan visibility gives an aesthetically pleasing look to the exterior of the building
- The panel is hemmed at one side to avoid edge visibility to the wall cladding providing aesthetics, and helps to place fastener making it weather tight
- Up to 100mm additional space of insulation
- Required Fewer fasteners than other profile (15-20% lower than other profile)
- Fasteners are recessed deep in the corrugation, panel gives walls an attractive uniform pattern from distance
- The panels are manufactured from G300 grade COLORBOND® pre-painted steel or ZINCALUME® steel

# SMARTDEK® 51

## Structural Decking System



Sectional Properties			
Base Metal Thickness	0.7	1	1.2
Steel Grade (Mpa)	550	550	500
Zinc coating (g/m <sup>2</sup> )	275	275	275
Self Weight (Kg/m <sup>2</sup> )	7.35	10.34	12.33
Full Cross – sectional Area (mm <sup>2</sup> /m)	855	1222	1467
Inertia Moment Ix1 (mm <sup>4</sup> /m)	381700	545300	654300
Section Modulus Zx1 (mm <sup>3</sup> /m) (min)	14090	20050	24000

LYSAGHT SMARTDEK® 51 Structural Decking System is an innovative “W” Profile structural steel decking system. It brings greater economy and design freedom as it is precision engineered and provides ease of use as well as safety. Its has excellent spanning capacities that ensure greater strength and less deflection, specially used in construction of composite floor slab.

LYSAGHT SMARTDEK® which is designed using a specialized software based on Windows named MEGAFLOOR, has a more economic value and provides flexibility in designing due to its accuracy in size, easy montage and safety features.

### Profile

LYSAGHT SMARTDEK-51® structural decking panel comes with 960mm effective cover width, 51mm deep ribs with nominal 316mm centre-to-centre pitch with the embossments (shear groove) on top and side of ribs for better mechanical interlock between steel and concrete. The “V” shape stiffener at the top rib and valley for greater strength. The profile comprises of intermediate male and female ribs for every interlocking side lap- joint.

### Material Specifications

SMARTDEK® 51 panel is manufactured from hot dipped zinc coated high strength steel with 550 MPa yield strength and coating mass of Z275 (min 275g/m<sup>2</sup> total of zinc coating on both sides). The available thickness ranges from 0.70 mm to 1.2 mm BMT (Base Metal Thickness). The steel conforms to AS1397 and BS EN 10147:2000.

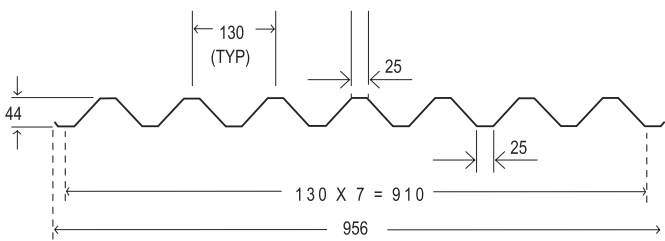
## Benefits

- Excellent spanning capacities for greater strength and less deflection 1.2 mm BMT SMARTDEK® 51 can span more than 3 metres unpropped
- Embossments provide mechanical interlock ensuring adequate composite action
- SMARTDEK® 51 acts as bottom tensile reinforcement and eliminates the need of bottom rebars
- Precision engineered; brings greater economy and design freedom
- Ease of installation combined with safety
- Saves on concrete and reinforcement cost
- Greater corrosion resistance provides long life
- SMARTDEK® 51 composite slabs can be designed for up to 4 hours of fire rating



# EZYDEK™ 44

## Decking System



EZYDEK™ 44 profile is a simple trapezoidal decking profile that enables easy and quick slab construction. It acts as a permanent formwork and provides a strong working platform during slab construction.

EZYDEK™ 44 sheet supports the load of wet concrete, imposed construction load and imposed storage load. It acts as a permanent shuttering solution and provides simultaneous casting of multiple floors. EZYDEK™ 44 sheet is available in customised lengths to meet customer specific requirements.

Available in multiple material choices, EZYDEK™ 44 profile provides ease of use and installation with safety. EZYDEK™ 44 profile is a steel decking system suitable for concrete, masonry or steel frame construction for application in infrastructure, industrial and commercial segments.

### Sectional Properties

Thickness TCT*(mm)	0.7	0.8	1	1.2	1.5
Unit weight (Kg/m)	6.67	7.63	9.54	11.46	14.33
Unit weight (Kg/m <sup>2</sup> )	6.98	7.98	9.98	11.99	14.99
Moment of Inertia (cm <sup>4</sup> )	21.96	25.28	31.93	38.58	48.55
Sectional Modulus (Top) (cm <sup>3</sup> )	9.67	11.11	13.97	16.81	21.02
Sectional Modulus (Bottom) (cm <sup>3</sup> )	10	11.49	14.44	17.37	21.72

Please contact Tata BlueScope Steel office considering the above for designs.

### Profile:

EZYDEK™ 44 profile has an effective cover width of 910 mm and a depth of 44 mm. The profile has a pitch of 130 mm centre to centre and is available in Total Coated Thickness (TCT) from 0.7 mm to 1.5 mm. EZYDEK™ 44 profile is available in pre-galvanized steel and pre-painted galvanized steel.

### Benefits

- Speedy construction ensures faster project completion
- Acts as a permanent shuttering
- Stronger than conventional shuttering
- Enables the casting of multiple floors
- Ease of installation with safety
- Greater corrosion resistance provides long life
- Provides strong working platform for allied construction activities



Guangxi Fangchenggang Power Station, China



# Structural Purlins & Girts

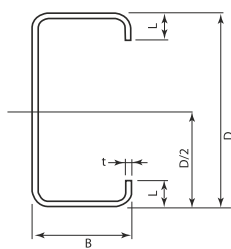


LYSAGHT® Purlins and Girts are lightweight structural steel members, designed in accordance with the As/Nzs 4600 : 1996 Cold Formed Steel Structures utilising high Strength Zinc-coated Steel.

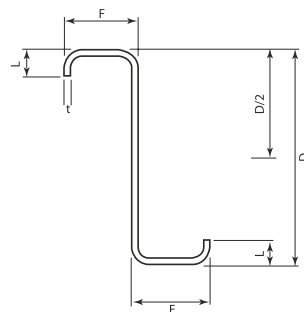
LYSAGHT® ZED-plus™ Sections may be used over single spans, un-lapped and lapped continuous spans in multi-bay buildings. Lapped continuous spans result in considerable capacity increase in the system.

LYSAGHT® CEE-plus™ Sections may be used in single spans, and un-lapped continuous spans in multi-bay building and are ideal as eave purlins or where compact sections required for detailing.

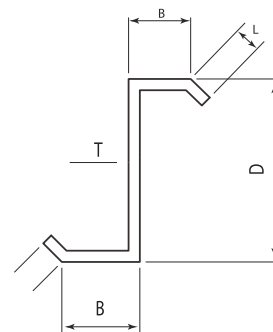
**CEE-plus™ Section**



**ZED-plus™ Section**



**ZEE-plus**



## Benefits

- High Strength Steel for better load carrying capacity and greater spanning capability.
- Zinc coated to provide corrosion resistance
- Light weight, easy and quick to install
- Pre-punched to avoid welding and cutting at site
- Saves 40-60% steel in comparison with traditional steel
- Lower maintenance cost
- Cladding fixing is easier and quicker

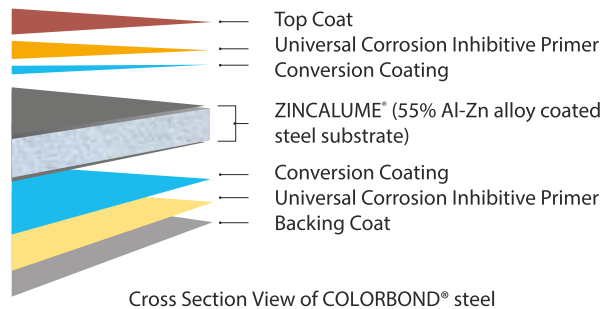
# Materials & Finishes

## Strong Brands, Quality Steel

LYSAGHT® products are manufactured from high quality ZINCALUME® steel and COLORBOND® steel, and are leading brands with a wide range of applications. These products have been used with striking effect by leading architects to create the latest in modern building designs, through aesthetic roofing styles for building projects.

ZINCALUME® steel is a premium metallic coated steel product composed of 55% aluminium, 43.4% zinc and 1.6% silicon. The zinc/aluminium alloy coating on ZINCALUME® steel imparts corrosion resistance of up to four times the life of galvanized steel.

COLORBOND® pre-painted steel combines the superior strength of steel, the corrosion resistance and protection of a zinc/aluminium alloy (ZINCALUME® steel) coating that maintain its long lasting beauty with excellent colour retention.

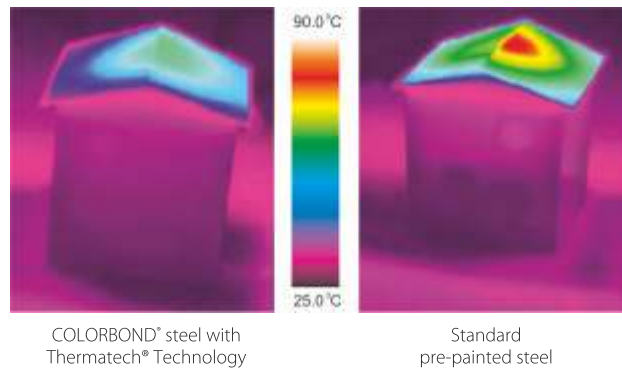


## Cool Comfort for Building Occupants

Thermatech® Solar Reflectance Technology is incorporated into COLORBOND® steel to lower temperature by absorbing less heat from the sun. COLORBOND® steel can reduce annual cooling energy consumption by up to 15%\* and also reduces peak roof temperature by up to 6°C compared to roofing materials of similar colour with low solar reflectance. In other words, Thermatech® is able to increase the Solar Reflectance Index (SRI) of roofing material.

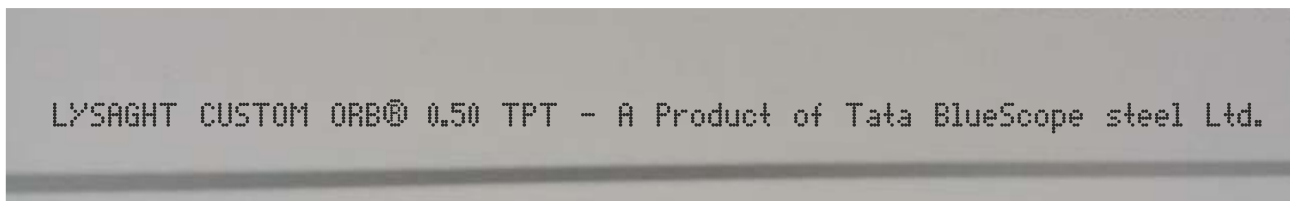
*\*Depending on level of insulation, colour, building shape, orientation and function.*

## THERMATECH®



## Quality Assurance

LYSAGHT® profiles are supplied with a brand mark at regular intervals on the reverse side of profile. The brand mark includes - name of the profile and Total Paint Thickness. This brand mark ensures authenticity and quality of the product.



## Standard Colour Range



Note : Above standard colour shades are given for guidance only. The Colour shades may look different due to print limitation. Please contact the nearest Tata BlueScope Steel sales office for any other colour shade enquiry.



Daramic Batteries, Gujarat

# Industrial



Tata Steel Kalinganagar, Odisha



Mahindra Vehicle Manufacturers Ltd., Maharashtra



JCB Manufacturing Unit, Rajasthan



Wipro Infrastructure Engineering, Karnataka



Siemens, Maharashtra

# Industrial



BASF, Tamil Nadu



Inter Auto, Tamil Nadu



Perto India Ltd., Rajasthan



SRG Spinning Mills, Tamil Nadu



ABG Shipyards, Gujarat

# Warehouse



Amazon India, Telangana



Apollo Tyres, Gujarat



Prakhyyat Infraprojects Pvt. Ltd., Maharashtra



Hindustan Unilever Ltd., Uttarakhand



Kolkata Metro, West Bengal

# Infrastructure



BRTS Bus-Stops, Gujarat



Mumbai Monorail Stations, Maharashtra



Chennai Metro Rail Depot, Tamil Nadu



BAI National Centre of Excellence, Guwahati



Global Excellence since 1857



360° Solution  
Design, Manufacturing &



Superior Quality  
with Unmatched  
Performance



Time Tested  
Global Legacy



Wide Range to  
suit your style

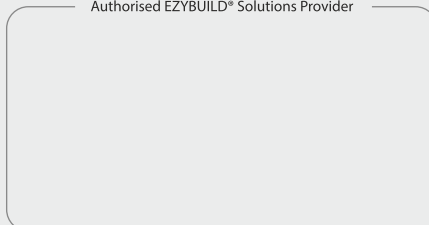


Customer  
Centricity

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