



# Stronger! Cooler! Durable! Sustainable!







Roof & Wall Sandwich Panels









Strong and Durable



Superior Thermal Insulation

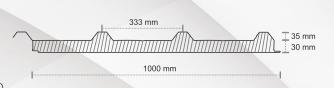


Enhanced Aesthetic Appeal



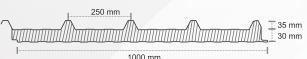
## DURASHINE® External Skin Polyurethane Rigid Foam (PUR) DURASHINE® Bottom sheet Insulation

## COOLPANEL<sup>TM</sup> Roof Magna (Available in West & South region)



## **COOLPANEL<sup>™</sup> Roof Maxima**

(Available in North & East region)



Polyurethane Rigid Foam (PUR) ' Insulation



#### **Specifications**

1	External colour	Standard DURASHINE® Colours
	Internal colour	DURASHINE® Asian White
Ì	Rib Height	35 mm
ľ	Panel Cover Width	1000 mm
	PUR Thickness (mm)	30/40/50

PUR density	40+-2 kg/m³
Foam Thermal Conductivity	0.023 W/mK
Purlin Spacing	max 1.5 m
Roof Slope	min 5 deg
Panel Length	8ft. (2440 mm), 10 ft. (3048 mm), 12 ft. (3657 mm), 14ft. (4267 mm)

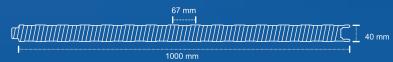






## COOLPANEL™ Wall Maxima

(Available in North & East region)



#### **Specifications**

External colour	DURASHINE®Asian White
Internal colour	DURASHINE®Asian White
Micro Rib Pitch	67 mm - 104 mm
Panel Cover Width	1000 mm
PUR Thickness (mn	n) 40/50

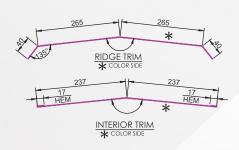
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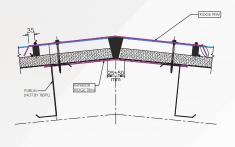


#### Accessories

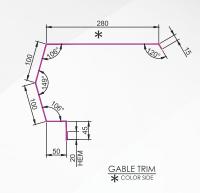
## **COOLPANEL™** Roof and Accessories Fixing Details

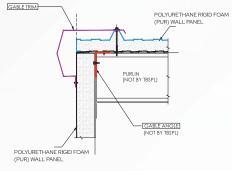
#### **RIDGE DETAIL**



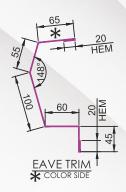


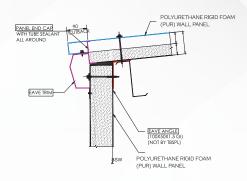
#### **GABLE DETAIL**

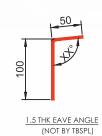




#### **EAVE DETAIL**



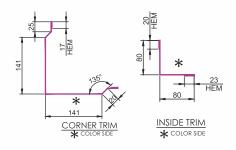


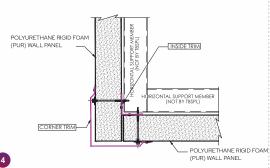




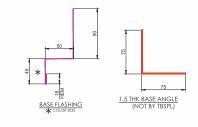
## **COOLPANEL™ Wall and Accessories Fixing Details**

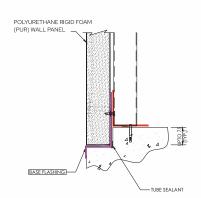
#### **CORNER DETAIL**





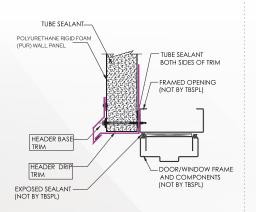
#### **BASE DETAIL**



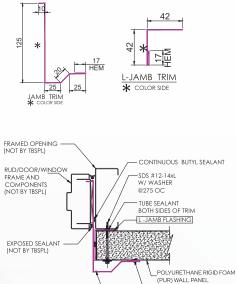


## **COOLPANEL<sup>™</sup> Wall Opening Fixing Details**

## 



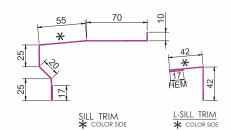
#### **OPENING JAMB DETAIL**

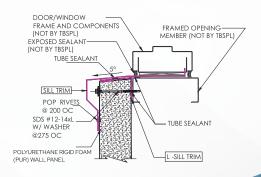


TUBE SEALANT

-JAMB TRIM POP RIVETS @ 200 OC

#### **OPENING SILL DETAIL**









### **Safety Recommendations**

#### **Use Safety PPE**





Reflective Jacket



Safety Goggles



double harness / Safety Belt



Safety Gloves



**PVC Sole Boots** 

## Safe Access platform for manpower to roof location is recommended

- All to ensure compliance with health & safety requirements.
- Ground conditions to the perimeter of the building must be adequately prepared.
- Caution to be taken when loading packs of panels onto purlins, especially if the roof pitch exceeds 8°. Panels must be securely tied to the roof structure at rafter location to prevent movement. The use of certified handling systems by installer/customer to be used for lifting of panels into position is recommended.

#### Pre-Installation Guidelines: Lifting Method and Preparation

We recommend the use of mechanical handling systems for the movement of lifting and handling of panels.

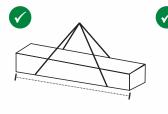
- Prior to commencing any installation the configuration and dimensional accuracy of the supporting structure should be checked as per Steel work alignment protocol.
- Ensure the site is clean, dry and structurally sound.
- Measure the area where the Polyurethane Rigid Foam (PUR) panels will be installed. This includes the height, width, and
  any openings (windows, doors).
- Plan the building layout in multiplication of standard sizes of COOL PANEL  $^{\text{TM}}$  to minimize the wastage.

#### Storage and Handling Guidelines

- The location for stacking must be smooth, firm, clean and ventilated.
- Panels should be cover with waterproof material and stacked in proper manner as shown in figure C.
- Panel bundles to be lifted from ground to roof level as per suitable capacity.
- Spreader bar along with Nylon Belts to be used for bundles more than 6-meter length.
- Wherever due to space restrictions, use of Crane/Frahna is not possible, Manual lifting may be done with help of rope using softeners to avoid scratches.
- Polyurethane Rigid Foam (PUR) packing to be placed under the side lap to avoid edge bending.



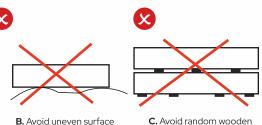
**A.** Avoid excess lifting weight



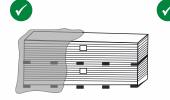
**A.** Lifting without traverse beam, if length of package does not exceed 6-meter



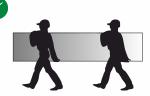
**B.** Spreader bar along with Nylon Belts to be used for bundles more than 6-meter length.



**C.** Avoid random wooden block support positions



**C.** Wooden Support shall be properly placed and it should cover with water-proof material



**D.** Manual lifting to be carried out by atleast two people with proper PPE (Personal Protective Equipment)

while storing

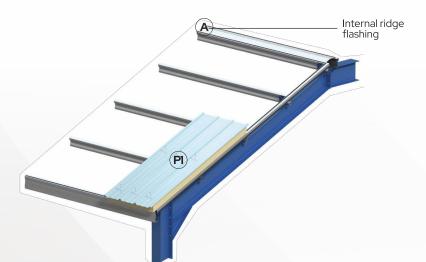
### **COOLPANEL**<sup>™</sup> Roof Installation

- Starting Point: Begin at the bottom edge of the roof, usually at the eave, and work upwards.
- Placing Panels: Place the first panel at the edge of the roof, ensuring it is straight and overhangs the eave by about 2 inches. Secure it with screws or fasteners.
- Securing Panels: Use self-tapping screws to secure the panels to the roof deck. Screws should be placed at the panel's high points and spaced according to the Purlin availability.

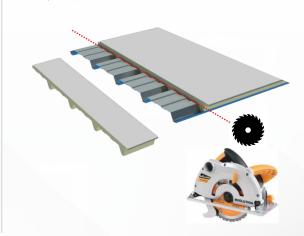
### **Installation Steps**



A - Fix internal ridge flashing . Fix first panel (P1) with main fasteners as per approved drawings

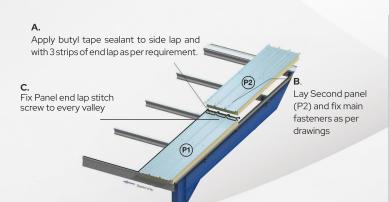


Cutting panels: if necessary, cut panels to fit using a saw. Ensure cuts are straight upto cutting of bottom sheet and pur foam. (Do not cut roof external panel)



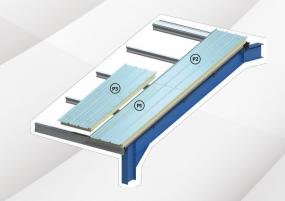
Overlapping Panels: Each subsequent panel should overlap the previous one by at least one ridge. Apply a bead of sealant along the overlapping edge to create a watertight seal.







Fix third panel (P3) with main fastener at eve and stitch fastener as per requirement.



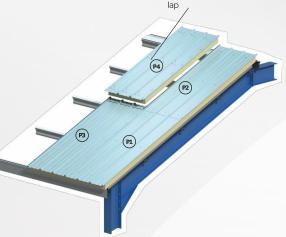


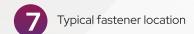
## 5

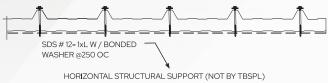
#### Apply butyl tape on P3 at end lap area.

**A.**Butyl sealant to be fixed at each end lap as illustrated in the figure.

B.
Lay fourth panel (P4) and fix screws as per drawings. Add stitching screws along side lap at 500mmcenters commencing 50mm from end







ROOF PANEL FIXING DETAIL

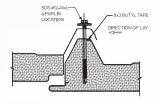
\* Storage, Handling guidelines, Installation steps, details are for reference only. For any technical support, please contact Tata BlueScope Steel office

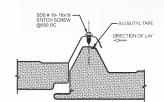


A.
Install profiled foam filler positioned 80 –
100mm from the ridge flashing edge, with



8 Side lapping details of roof panel







#### **COOLPANEL™** Wall Installation

#### **Installation Guide steps**

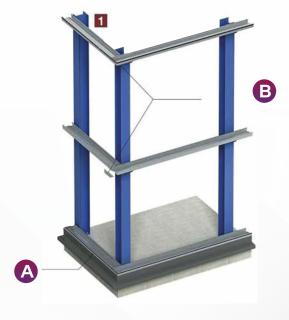
#### **Before Installing Panels**

Ensure steelwork is suitably lined, levelled and within tolerance. Visually check internal liner joint to ensure panels are joined fully.

Joints need to be aligned correctly during installation to prevent the 'uneven' effect at the drip.

#### Step 1

- A) Line, level and fix drip flashing using low profile fasteners. Joints in the drip flashing to incorporate butt straps sealed with two runs of non-setting gun-grade butyl sealant
- B) Install corner rake angle to open ends of sheeting rails to provide suitable bearing for fixing of panels on return elevation





#### Step 2

- A) Install internal corner flashing with low profile fasteners
- B) Locate first panel (P1) ensuring it is correctly positioned lined and levelled and a minimum of 5mm off the drip flashing at the back, as mentioned in point (A)
- C) Install min. 1No. main fastener through the male joint at the top and bottom, and also min. 2No. at intermediate locations
- D) At corner positions through fix min. 2 No. countersunk fasteners into female panel joint at each horizontal rail location



#### Step 3

A) Locate next panel (P2) into position ensuring that the factory-applied weather seal is compressed & remains in position. Ensure panel is lined and levelled correctly in line with adjacent panel and install min. 1 no. main fastener through the male joint at the top and bottom, and also min. 2 nos. at intermediate locations







#### Step 4

- A) Locate panel P3, P4 successively into position ensuring factory - applied weather seal is compressed
- B) Cut panel (P5) as required to size using carbide tip circular saw, ensuring it meets the outside edge of (P1)
- C) At corner positions, through-fix min. 2nos. countersunk fasteners into panel (P5) cut edge, at each horizontal rail location

#### Step 5

A) Fix external corner flashing with low profile stitching as per drawings. Overlap joints of corner flashings to be filled with butyl tape.



## **COOLPANEL**<sup>™</sup> **Applications**

















#### **Available Standard Colours\***

Asian White™

Bright Green<sup>™</sup>

Pearl Green<sup>™</sup>

Cherry Red<sup>T</sup>

Coffee™

Smart Grey<sup>™</sup>

Colour shades are for reference only and actual colour of the product may vary. Colour range and product range is subject to availability. The above product is subject to the guidelines available at www.tatabluescopesteel.com and this shall not be construed as warranty or guarantee of the product of any kind whatsoever.



Remove guard film immediately after installation of the DURASHINE® COOLPANEL™.



Maintenance Recommendation: Clean and maintain DURASHINE® COOLPANEL™ regularly to remove dust and dirt.



Instructions for fasteners: Use carbon free washers with Class 3 fasteners for installing DURASHINE® COOLPANEL™ and accessories.

Dealer Name and Address







Email: durashine@tatabluescopesteel.com Website: www.tatabluescopesteel.com

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