



PUR & PIR INSULATED SANDWICH PANELS

High-performance roof and wall envelope systems manufactured in Qatar.

PRODUCT OVERVIEW

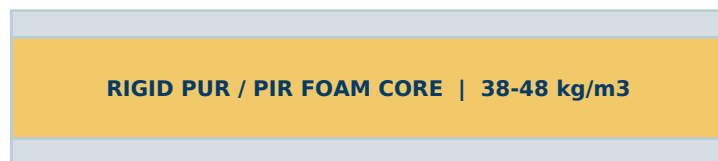
MEGA METAL PUR and PIR Insulated Sandwich Panels combine durable pre-painted galvanized steel skins with a rigid high-density insulation core to provide thermal performance, weather protection and a finished surface in one lightweight system. Factory production ensures consistent quality and fast installation for roofs, external walls, internal partitions, industrial enclosures and temperature-controlled buildings.

STANDARD PRODUCT SPECIFICATION

PROPERTY	SPECIFICATION
Panel types	Roof panel and wall panel
Steel thickness	0.30 / 0.40 / 0.50 / 0.70 mm
Insulation core	Rigid polyurethane (PUR) or polyisocyanurate (PIR)
PUR / PIR core density	38-48 kg/m ³ , subject to project specification
Nominal thickness	30 / 40 / 50 / 75 / 100 / 150 / 200 mm
Effective panel width	1000 mm
Panel length	Project requirement / transport limits
Joint systems	Roof side overlap; wall male/female interlock

PANEL CONSTRUCTION

PRE-PAINTED GALVANIZED STEEL



PRE-PAINTED GALVANIZED STEEL

RIGID PUR / PIR FOAM CORE | 38-48 kg/m³

KEY BENEFITS

Fast installation, reduced thermal bridging, clean finished surfaces, low dead load and reliable weather protection when installed to approved details.

MANUFACTURING

Manufactured to project requirements with colour, coating, thickness and length subject to approved order details.

COUNTRY OF ORIGIN

State of Qatar. Project submittals may include material certificates, drawings and inspection records.



ROOF SANDWICH PANEL

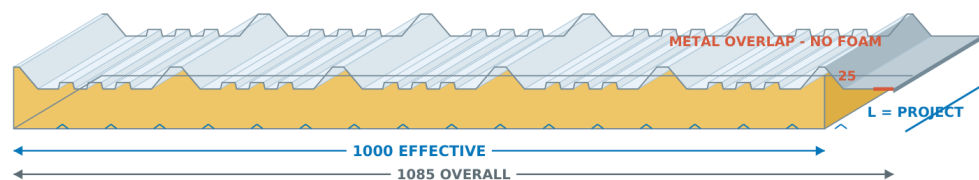
Current production profile with straight sheet-only overlap and inward lower V-grooves.

3D DIMENSIONAL PROFILE

ROOF PANEL - 3D ISOMETRIC DIMENSIONAL VIEW

3D geometry based on the supplied production profile; stated dimensions govern.

ALL DIMENSIONS IN mm



PROFILE DIMENSIONS

RIB PITCH	200
RIB HEIGHT	27
BASE / TOP	60 / 14
CLEAR	140
3 MINOR RIBS	20 W x 15 H
FEED SHEET	1219
LOWER V-GROOVE	3 x 3 @ 60
END JOINT	METAL OVERLAP

ROOF PROFILE SPECIFICATIONS

PROPERTY	SPECIFICATION
Effective cover width	1000 mm
Overall formed width	1085 mm
Feed sheet width	1219 mm
Main rib pitch / height	200 mm / 27 mm
Main rib base / top	60 mm / 14 mm
Clear spacing	140 mm
Minor ribs	3 between each main rib, 20 W x 15 H
Lower face	Inward V-groove 3 x 3 mm at 60 mm
Side joint	Straight metal overlap - no foam

FIRE CLASSIFICATION

Class A to ASTM E84-22 applies to the documented PUR configuration. PIR performance shall follow its corresponding approved test certificate.

APPROVAL

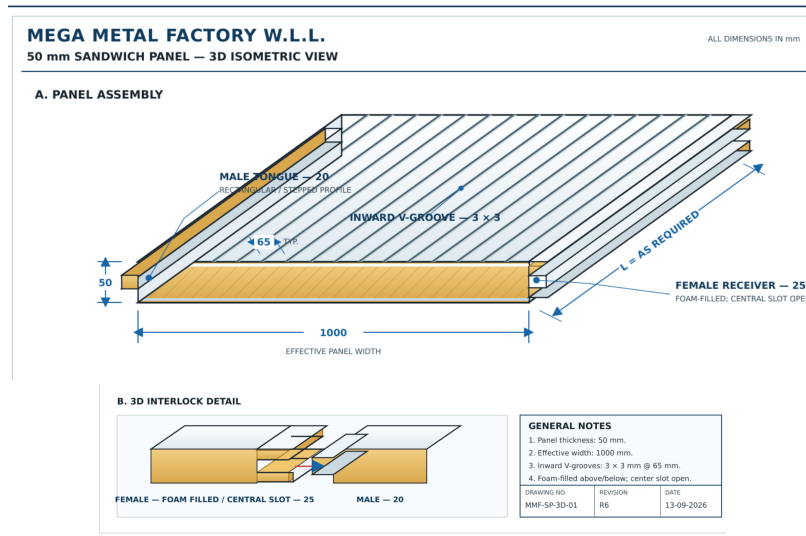
Qatar Civil Defence approval is available and the product is approved. The approval certificate is provided with the project submittal documentation.



WALL SANDWICH PANEL

1000 mm effective width with foam-filled male and female joint geometry.

3D PANEL AND INTERLOCK DETAIL



CURRENT JOINT GEOMETRY

MALE TONGUE

20 mm

Rectangular stepped foam tongue

FEMALE RECEIVER

25 mm

Foam above and below; central slot open

FACE PROFILE

3 x 3 mm

Inward V-groove at 65 mm typical pitch

WALL PANEL SPECIFICATIONS

PROPERTY	SPECIFICATION
Effective panel width	1000 mm
Available thicknesses	30 / 40 / 50 / 75 / 100 / 150 / 200 mm
Joint type	Male/female interlocking side joint
Installation	Vertical or horizontal to approved shop drawings



TYPICAL BUILDING APPLICATIONS

Roof and wall panel systems for industrial, commercial and temperature-controlled buildings.

BUILDINGS MANUFACTURED WITH SANDWICH PANELS



WAREHOUSES

Storage and logistics buildings



FACTORIES

Production and processing facilities



COLD STORES

Chillers and temperature-controlled rooms



WORKSHOPS & HANGARS

Vehicle, maintenance and equipment buildings



MODULAR OFFICES

Site offices, cabins and internal partitions



COMMERCIAL BUILDINGS

Showrooms, retail units and service buildings

SELECTION BY BUILDING REQUIREMENT

ROOF SYSTEMS

Weather-resistant insulated roofing for warehouses, factories, workshops and large-span buildings.

WALL SYSTEMS

Fast-cladding external walls, internal partitions and clean finished facades with concealed joints.

CONTROLLED ENVIRONMENTS

Thermally insulated enclosures for cold stores, food processing, plant rooms and service spaces.

PROJECT DESIGN NOTE

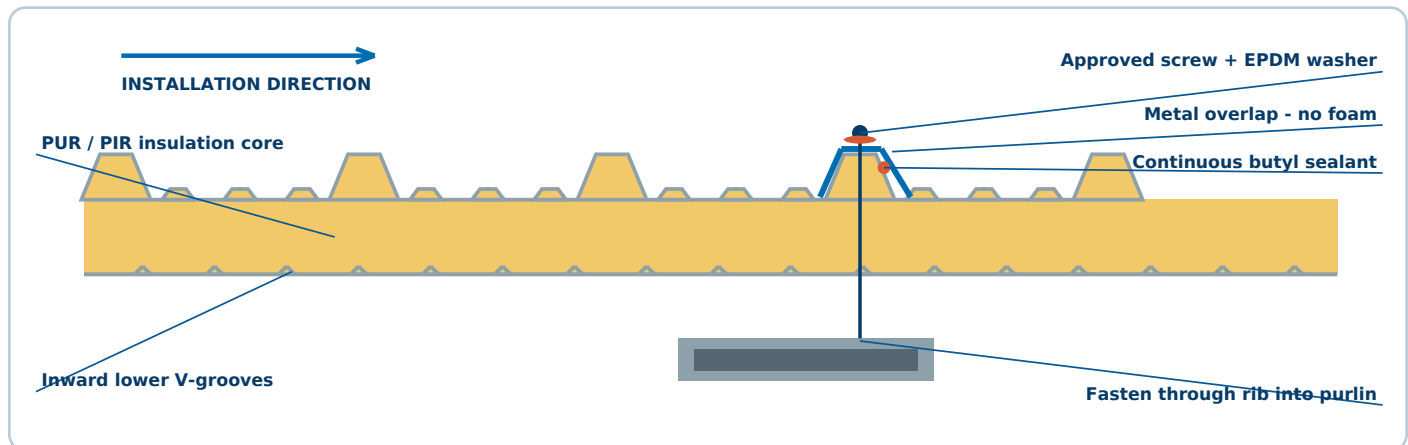
Final panel thickness, support spacing, fastener quantity, fire performance, colour and coating shall be selected to the approved project design and environmental conditions.



ROOF PANEL INSTALLATION METHOD

Typical guidance - final fixing layout, laps and details shall follow the approved project shop drawings.

TYPICAL ROOF FIXING DETAIL



INSTALLATION SEQUENCE

1 Verify Supports

Confirm purlin alignment, bearing, slope, spacing and clean contact surfaces before placing panels.

2 Set First Panel

Start at the approved leeward edge. Align the eave overhang and set the first panel square to the roof datum.

3 Seal the Overlap

Apply continuous approved butyl sealant beneath the sheet-only metal overlap; keep the insulation foam clear of the lap.

4 Engage and Fix

Seat the overlap over the adjacent main rib. Fix through the rib crown with approved self-drilling screws and EPDM washers.

5 Complete Flashings

Install ridge, eave, verge and penetration flashings with closures and sealed joints as detailed.

6 Inspect and Clean

Remove swarf immediately, repair approved touch-ups, remove film and complete a final water-tightness inspection.

CRITICAL CONTROLS



Do not over-tighten fasteners or crush the panel rib / washer.
Keep sealant continuous at laps, closures and all penetrations.

PROJECT-SPECIFIC ITEMS



Roof slope, end-lap length and fastener quantity are design-dependent.
Use approved fall protection, access boards and lifting procedures.



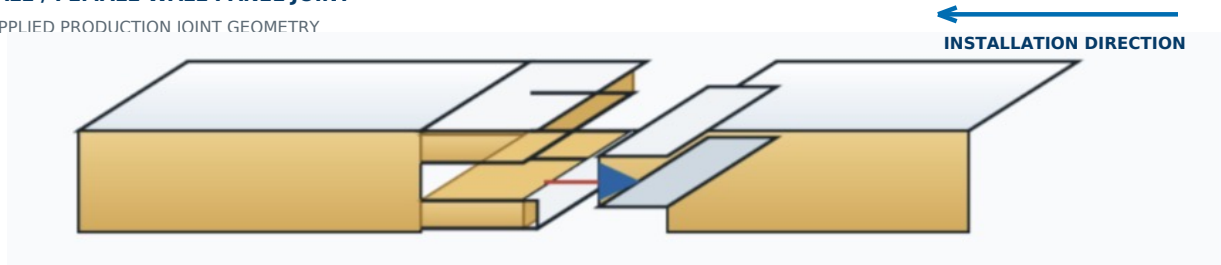
WALL PANEL INSTALLATION METHOD

Typical guidance - support spacing and fixing quantity shall be confirmed by the project design.

TYPICAL WALL PANEL JOINT INSTALLATION DETAIL

MALE / FEMALE WALL PANEL JOINT

SUPPLIED PRODUCTION JOINT GEOMETRY



FEMALE RECEIVER - 25 mm

Foam-filled above and below; central slot open

MALE FOAM TONGUE - 20 mm

Rectangular / stepped foam tongue

INSTALLATION SEQUENCE

1

Prepare the Base

Set out the wall line. Install base channel, flashing, closures and approved sealant on a level datum.

2

Place First Panel

Start at the approved corner. Seat the panel in the base and verify line, level and plumb before fixing.

3

Fix to Supports

Use the approved concealed or exposed fixing detail at each designated girt without over-tightening.

4

Engage the Joint

Align the next panel and fully insert the 20 mm male tongue into the 25 mm foam-filled female receiver.

5

Finish Openings

Install corner trims, head / jamb / sill flashings and penetration details with continuous weather seals.

6

Final Inspection

Check joint closure, alignment, fasteners, sealant continuity and coating condition; remove swarf and film.

JOINT AND SEALING



Keep the interlocking joint clean, aligned and fully seated.
Use approved sealant at base, corners, openings and external flashings.

INSTALLATION QUALITY



Re-check plumb and module width regularly to prevent accumulated drift.
Protect cut edges and never leave metal swarf on coated surfaces.