



M- SOLAR ROOF HIDDEN MOUNTING SYSTEM

(BIPV) WITH R13 (U VALUE 0.44) INSULATION



ELIMINATES 2-4 LAYERS OF LABOR MOUNTING COST

M-Solar Roof is a specially designed Non Structural roof panel for PV (Photovoltaic) module mounting as BIPV (Building Integrated PhotoVoltaic) without additional visible rails structure on the Rooftop.



405 Wp Bifacial PERC Monocrystalline Module

CONCEPT

M-Solar Roof panel. PV panels and two layers of specially profiled metal sheet, pre-painted galvanized steel and injected with Class A (B1-s1,d0) fire rated Polyiso (PIR) foam.

- High Performance 405 Wp Bifacial PERC Monocrystalline Module (Alternative 375 Wp Mono – 72 cell)
- Global. Tier 1 bankable brand – 30 years Linear Power Warranty with only 0.5% degradation /year.
- 20.6% Maximum Efficiency – 144 Cell – Maximum System Voltage 1500 VDC-
- Dimensions 2034 x 1000 x 30 mm
- The Bifacial cell result in additional 10%-30% yield gain from rear side
- Low current density technology to decrease the internal power consumption effectively
- MBB and HC technology to reduce the negative affection to yield caused by Micro crack and shadow

PROPERTIES:

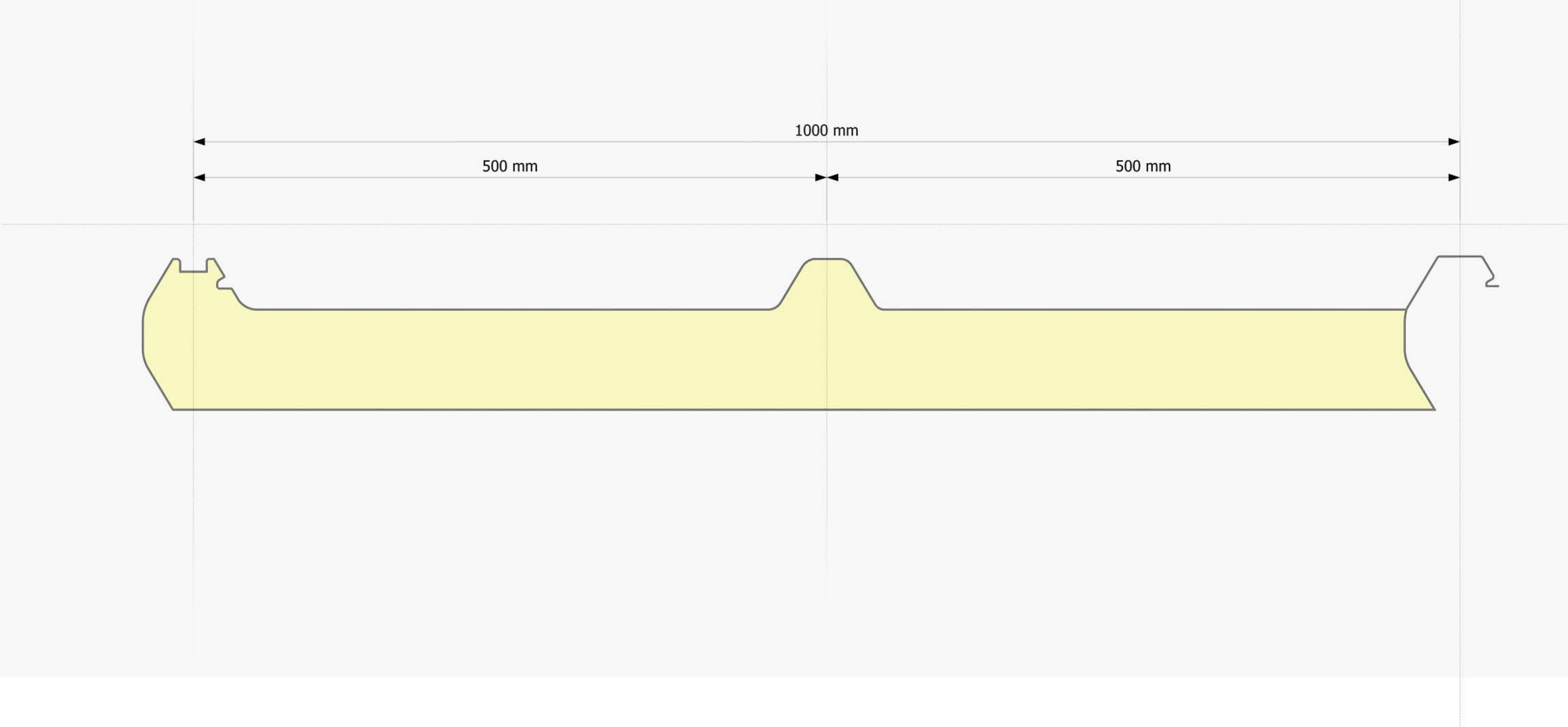
- Non-roof penetrating PV mounting solution(optimized for 405WP Bifacial PERC or 375 Wp 72 cells modules)
- Nice design - hidden fixing bolt design
- Fast and easy installation
- Leakage proof (25 years Warranty)
- Eliminates thermal bridging - R13 (U Value 0.44) insulation
- High structural performance for wind loads

APPLICATIONS:

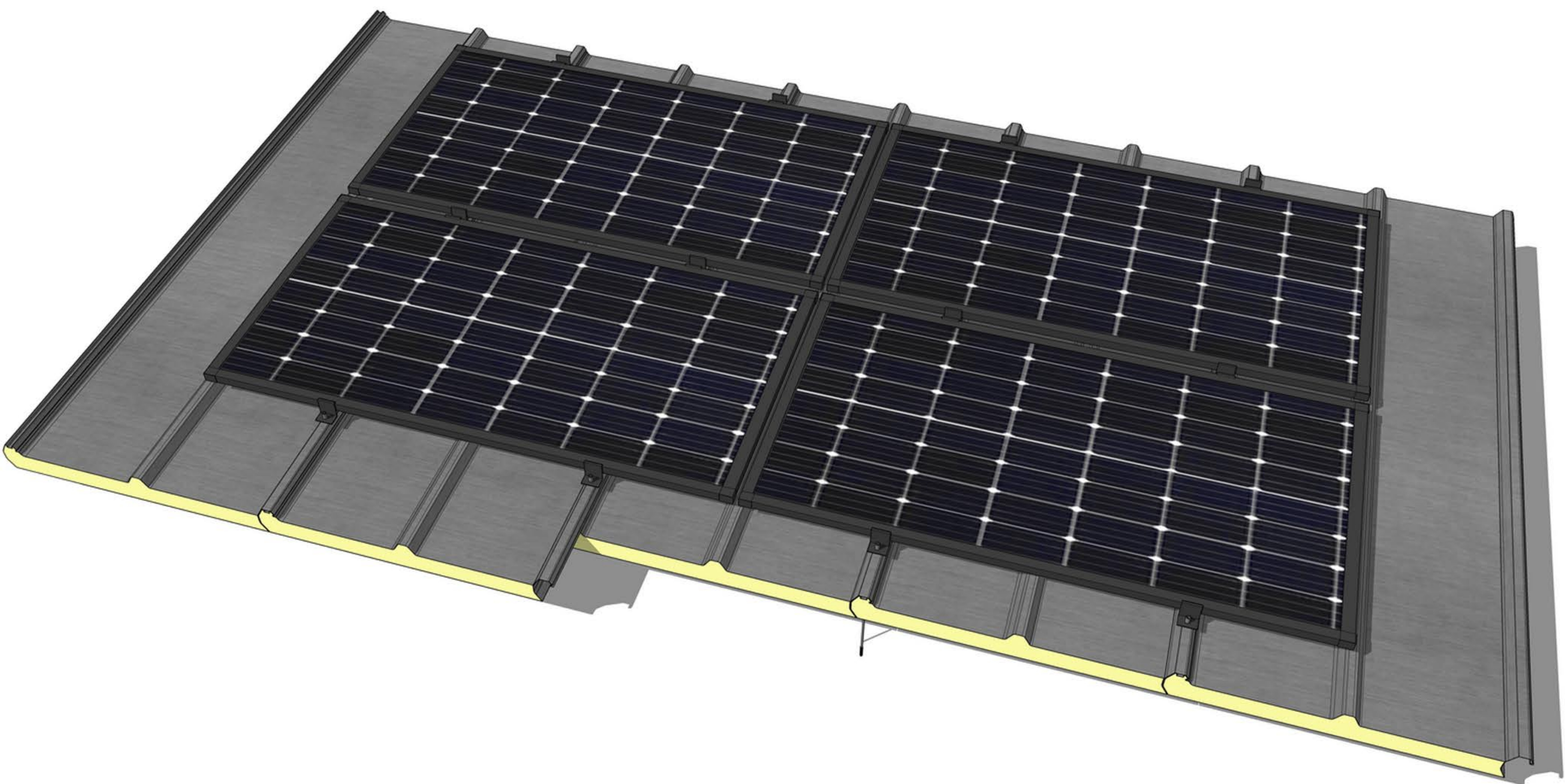
M-Solar Roof can be applied directly as a new roof or as new roof on any old structural roof construction and can further be used for:

- Apply directly Green Grass roof solution on top
- Apply directly Asphalt (Triangle concept) or Tile roof solution on top
- Use as finished Flat Roof solution – slope > 1%

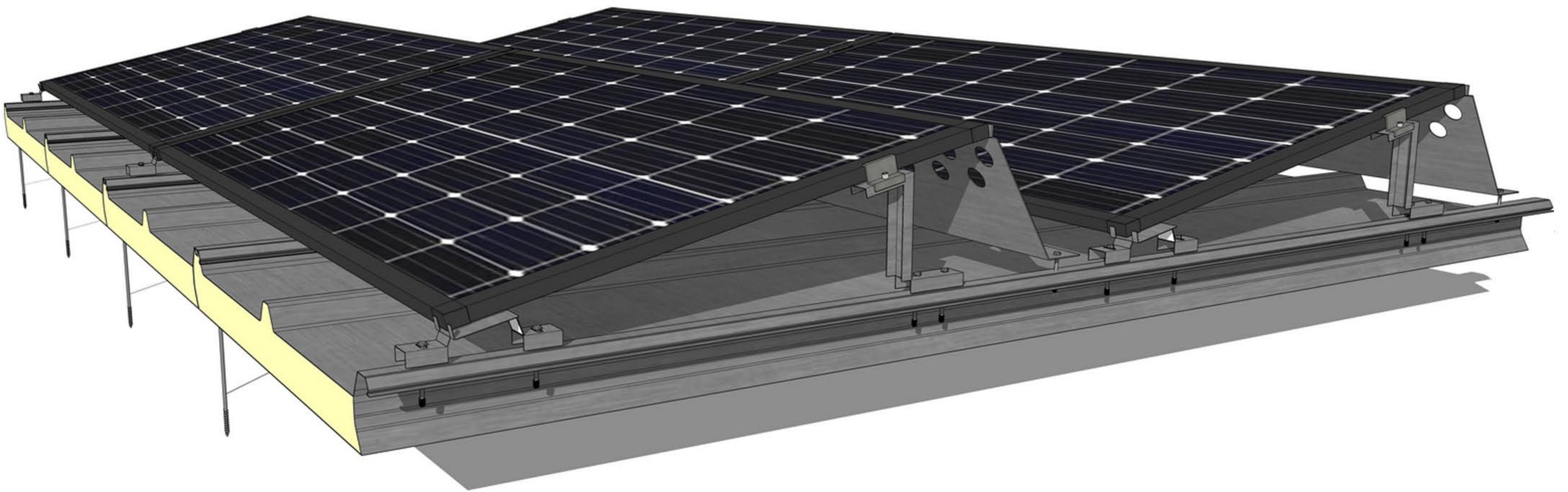
DRAWING:



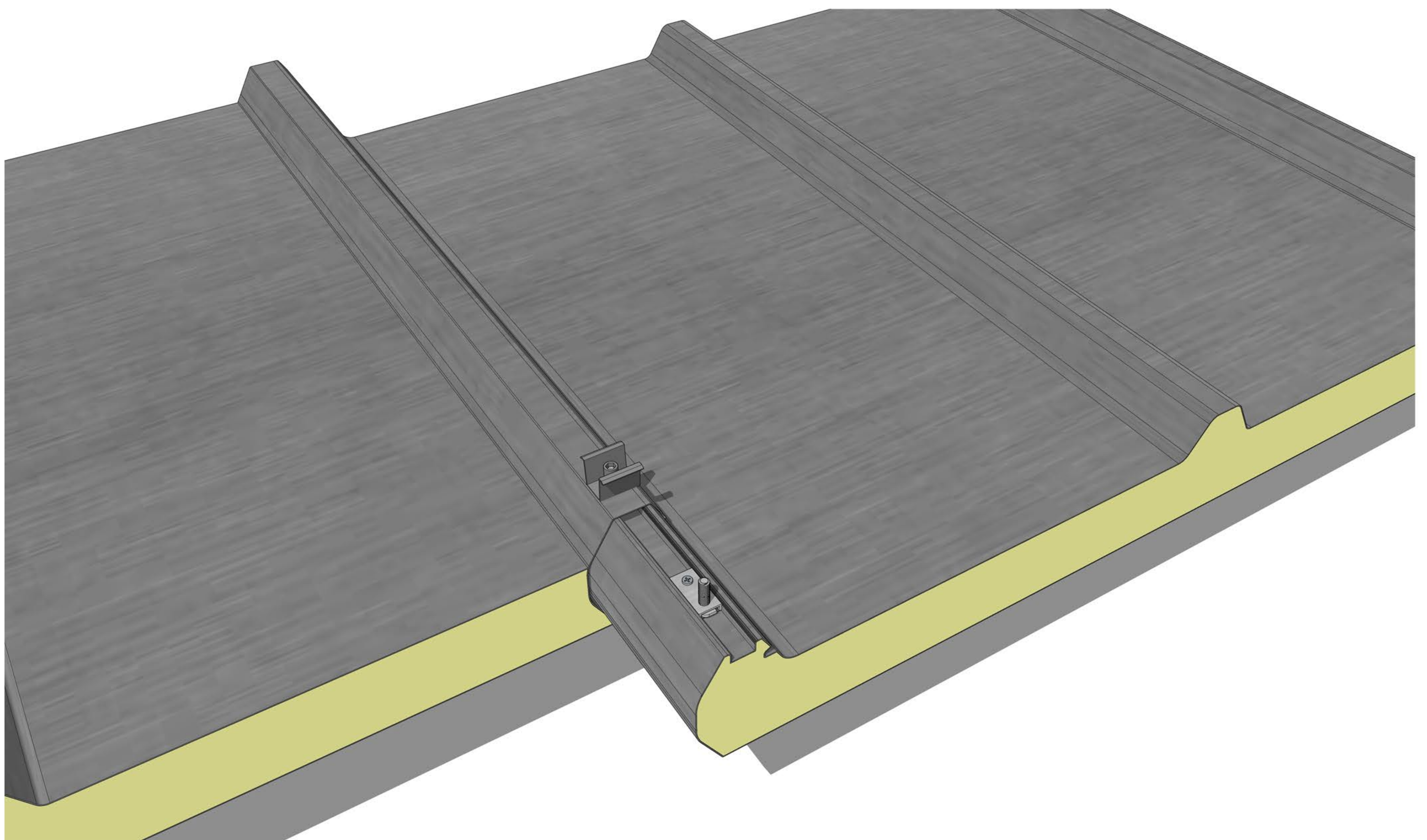
ROOFTOP CONCEPT:



FLAT ROOF CONCEPT:



ROOFTOP 3 D VIEW



MOUNTING ACCESSORIES ROOFTOP

T-Bolt



Mld clamp



screw/Square washer



Mounting clip



End clamp

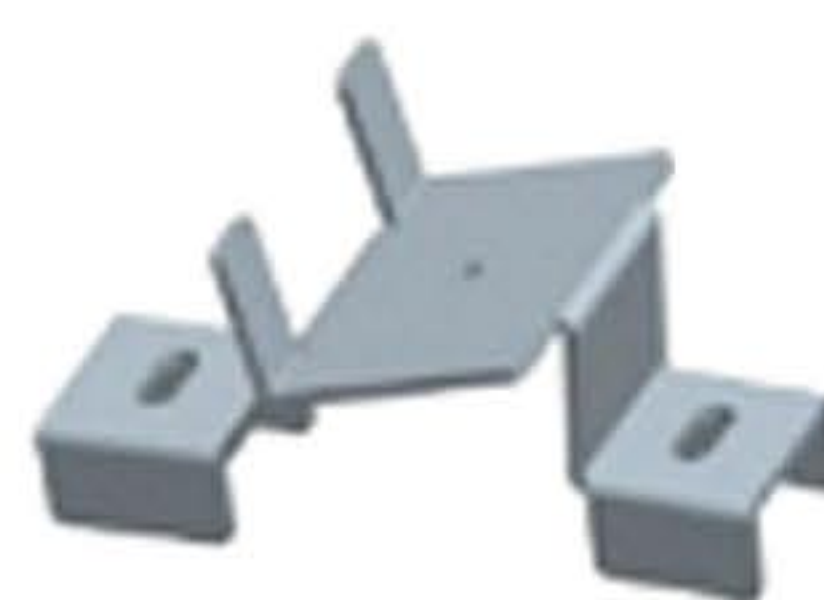


ADDITIONAL ACCESSORIES FOR FLAT ROOF INSTALLATION (12 TO 15 DEGREES TILT)

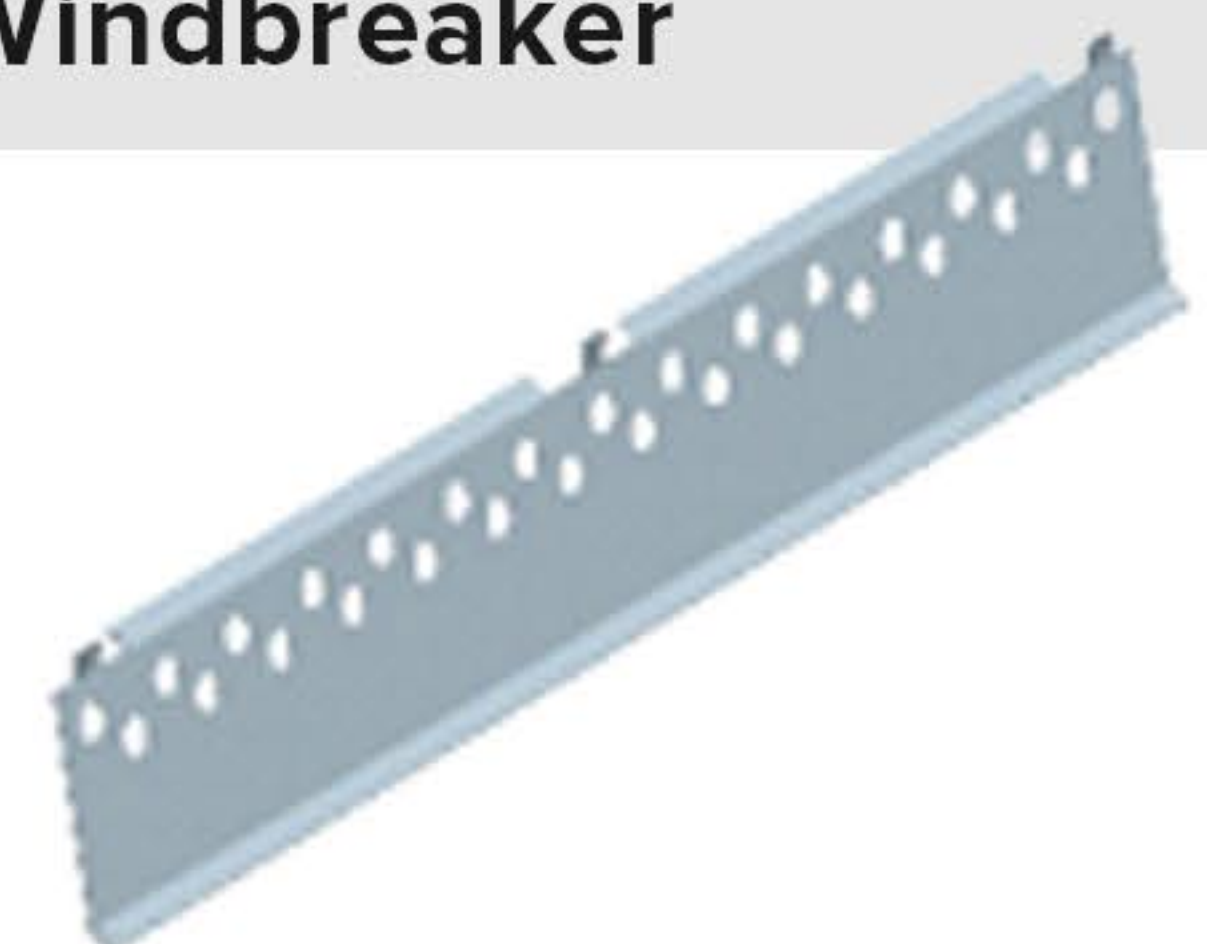
Flat Roof Back



Flat Roof front



Windbreaker



M-SIPs is one of the market leaders of sustainable BIPV construction technologies for Renewable Energy which keeps the aesthetics and functionality of the building without any damage from installing PV modules on roof top. We are devoted to provides new smart concepts for Zero Energy Housing done clever.

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TECHNICAL SPECIFICATIONS: M-SOLAR ROOF

Dimensions		
Length standard	feet	8 - 39' (2440 – 12000 mm)
Width standard	feet	39" (1.000mm)
Thickness standard	inches	2" (50mm)
Tolerance Thickness	ASTM C 1185	+/- 1-2 %
Tolerance Length	ASTM C 1185	+/- 1-2 %
Tolerance Width	ASTM C 1185	+/- 1-2 %
Weight	Sqft/m2	3.9lbs/sqft/18 kg/m2

Insulation		
Polyiso (PIR)	ASTM C 1185	40 – 50 kg/m3
Fire class material	ASTM E 84 - Flame/Smoke	25/200
	EN 13501:2	B1-s1,d0
Mold Resistance	ASTM D 3273 (scale 1–10 and 10 best)	10
Insulation Value	ASTM C518	R13 (U value 0.44)

Surface material		
Steel Plate	Pre-painted galvanized steel	Gauge 24 (0.5mm)
Warranty	Leakage proof >1 % (no roof joint)	25 years