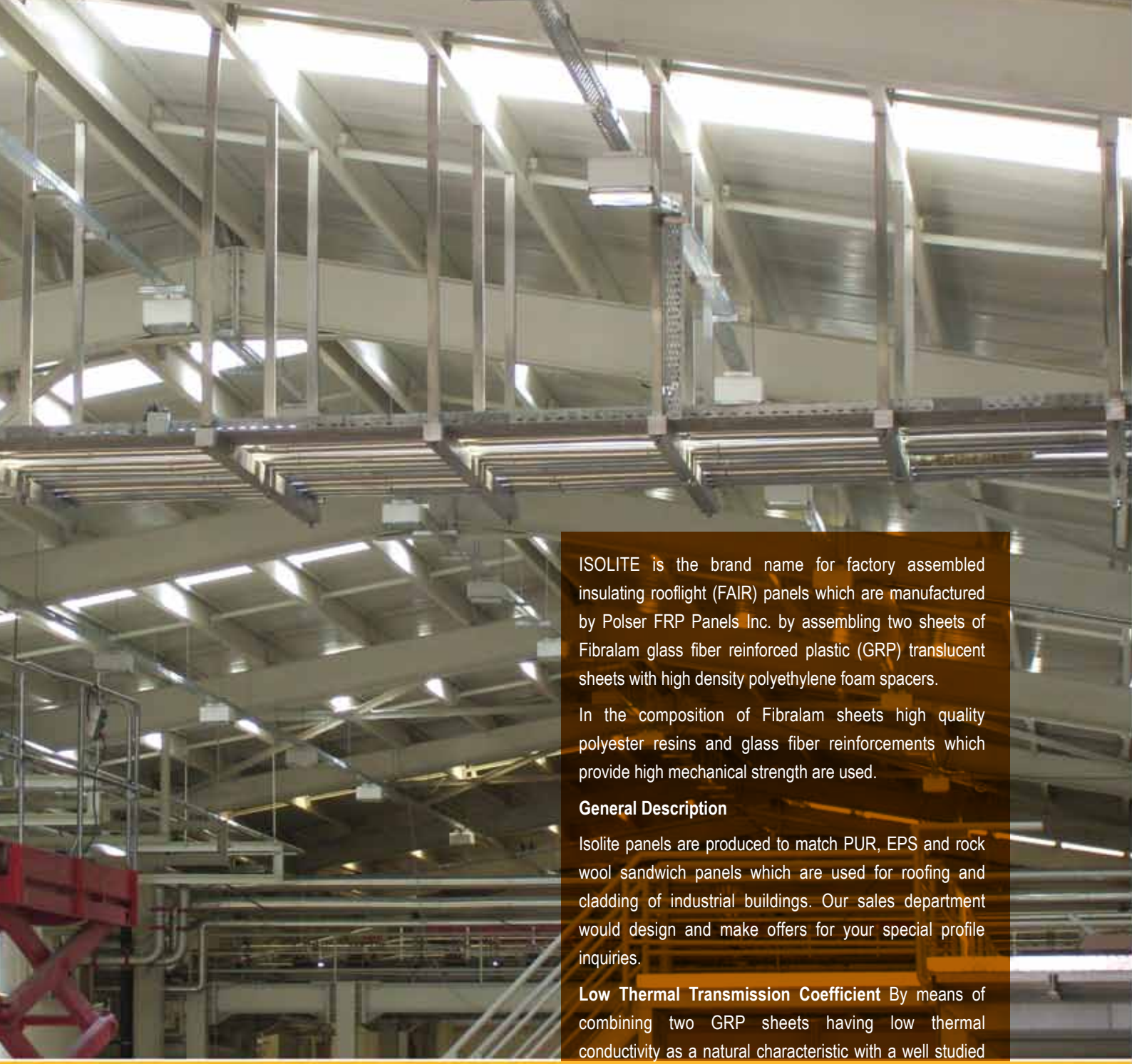
DOUBLE SKIN ROOFLIGHT PANELS

ISOLITE®



ISOLITE®

DOUBLE SKIN ROOFLIGHT PANELS

ISOLITE is the brand name for factory assembled insulating rooflight (FAIR) panels which are manufactured by Polser FRP Panels Inc. by assembling two sheets of Fibralam glass fiber reinforced plastic (GRP) translucent sheets with high density polyethylene foam spacers.

In the composition of Fibralam sheets high quality polyester resins and glass fiber reinforcements which provide high mechanical strength are used.

General Description

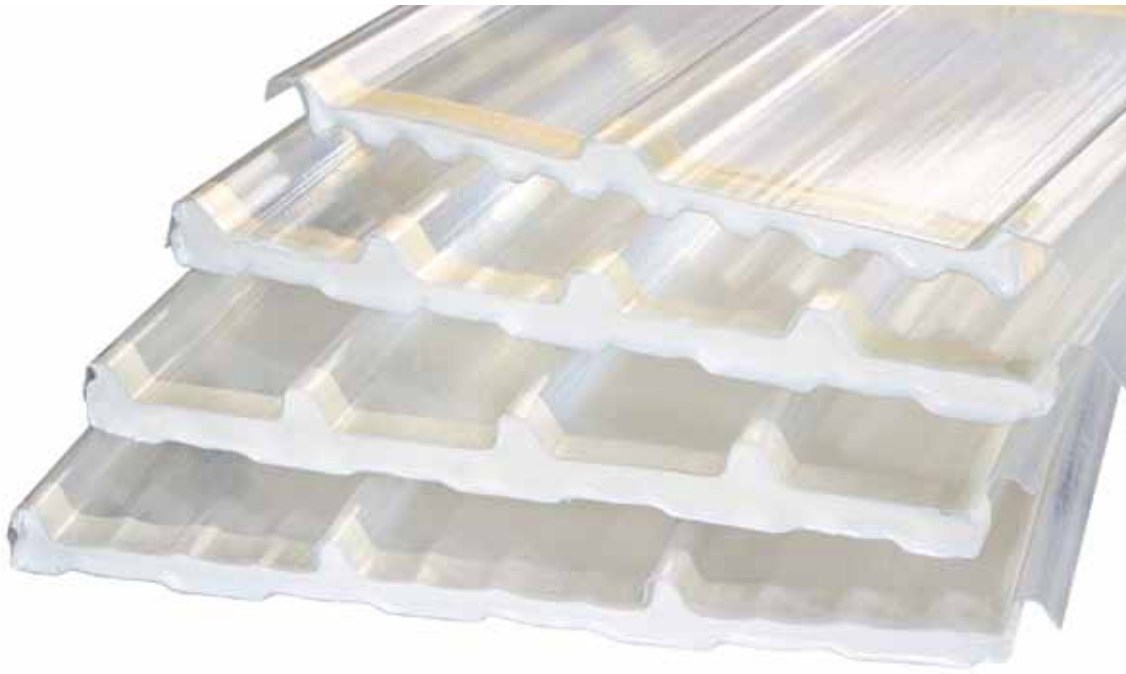
Isolite panels are produced to match PUR, EPS and rock wool sandwich panels which are used for roofing and cladding of industrial buildings. Our sales department would design and make offers for your special profile inquiries.

Low Thermal Transmission Coefficient By means of combining two GRP sheets having low thermal conductivity as a natural characteristic with a well studied design a low U value of 3.0 $W/m^2 K$ is achieved.

Humidity & Mildew Isolite panels guaranty the impermeability thanks to the special silicon mastics used which are resistant against temperatures up to 100°C.

Mono block panels Isolite panels are produced in lengths according to the requirements of your projects which might be from ridge to gutter as one piece or with shorter lengths than sandwich panels. So that a light stripe might be formed on the roof of an industrial building along the slope or along the length.

Resistance to General Corrosion Isolite panels remain virtually unaffected in many chemical environments. They have an excellent resistance to general corrosion for surface contacts with strong chemicals. After contact with chemicals, washing the sheet's surface with sufficient amount of water would extend the life of the product.



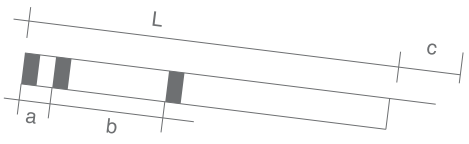
Some of the common chemicals which Isolite panels resistant against are as follows:

CHEMICAL	CONCENTRATION
Acetic Acid	%5
Chloric Acid	%10
Nitric Acid	%10
Sulphuric Acid	%30
Etyl Alcohol	%95
Benzyl	%30
Toluol	%30
Carbon Sulphur	%30

* For chemicals stronger or different than above mentioned ones please contact our sales & marketing department.

The following details should be communicated when inquiring Isolite panels.

- Panel length (L)
- Profile type (the name of the matching sandwich panel)
- Thickness of top and bottom sheets (minimum 1.5 mm)
- Number of panels
- Type of Isolite panel
- Left or right type of panels
- The purlin distance (for the first purlin - a , normal purlin - b)
- Isolite panels are produced with a standart cut back of 15 cm unless specified by the customer.



Left Panel

Right Panel

Types of Isolite

Isolite panels might be produced with below combination of Fibralam sheets.

Top Sheet	Bottom Sheet
Fibralam ST MUV	Fibralam ST UV
Fibralam ST JUV	Decolite ST JUV
Fibralam ACRYL MUV	Fibralam ACRYL UV
Fibralam ACRYL JUV	Decolite ACRYL JUV

Besides Isolite panels might be produced with Fibralam FR Cl3 (BS 476-7) top and Fibralam FR Cl1 (BS 476-7) bottom sheets as fire retardant translucent panels.

Optional Product Specifications

FIBRALAM ST MUV:

Standart Fibralam sheets which are produced with UV resistant orthophtalic polyester resins. The top surface is coated with Melinex 301 polyester film.

FIBRALAM ST JUV:

Standart Fibralam sheets which are produced with UV resistant orthophtalic polyester resins. The top surface is coated with UV resistant ISO NPG gelcoat.

FIBRALAM ACRYL MUV:

Fibralam sheets which are produced with UV resistant acrylic modified polyester resins. The top surface is coated with Melinex 301 polyester film.

FIBRALAM MX:

Fibralam sheets which are produced with orthophtalic polyester resins. The top surface is coated with Melinex 389 high UV resistant polyester film.

FIBRALAM ST UV:

Standart Fibralam sheets which are produced with UV resistant orthophtalic polyester resins.

DECOLITE ST JUV:

Decolite sheets which are produced with UV resistant orthophtalic polyester resins. The bottom surface has a hexogonal texture to diffuse the light homogenously and is coated with UV resistant ISO NPG gelcoat.

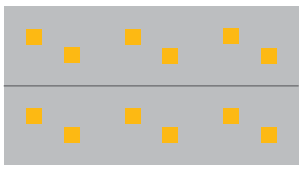
FIBRALAM ACRYL UV:

Fibralam sheets which are produced with UV resistant acrylic modified polyester resins.

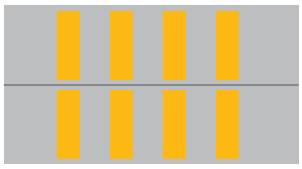
DECOLITE ACRYL UV:

Decolite sheets which are produced with UV resistant acrylic modified polyester resins. The bottom surface has a hexogonal texture to diffuse the light homogenously.

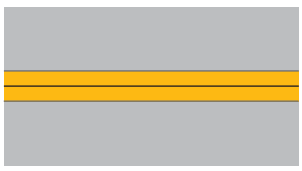
Chequer Board



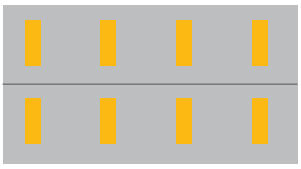
From Ridge to Gutter



Light Stripe at The Ridge



Alonge the Slope

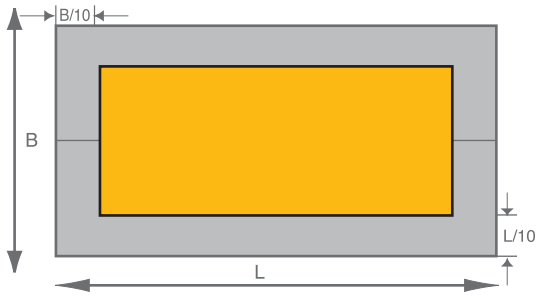


Typical roof layouts for different types of installations

Polser does not recommend the installation of Isolite panels side by side continuously. Given that the translucent panels do not have the same strength against the wind load as the metal panels, a good installation practice is to avoid the use of rooflights at the sides of a roof as shown in the below drawing with darker color.

The recommended length of the panels is 6.0 m for the ease of application, transportation and storage. Yet Isolite panels might be produced at 12.0 m lengths when required.

As a standard, Isolite panels are produced to match 40 mm metal sandwich panels but when required they might be designed and manufactured for different sandwich panel thicknesses.



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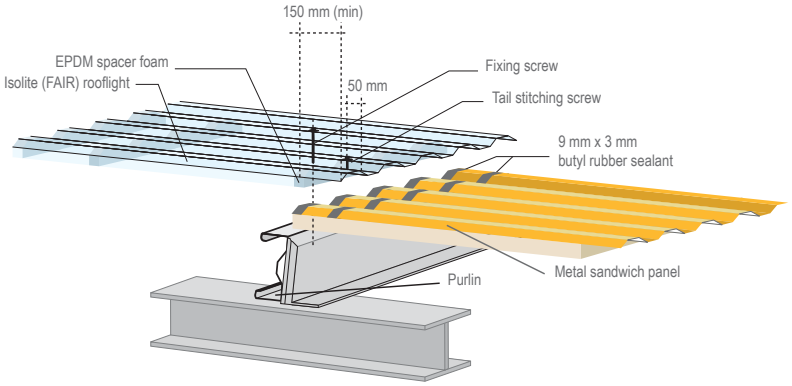
Installation

Installation

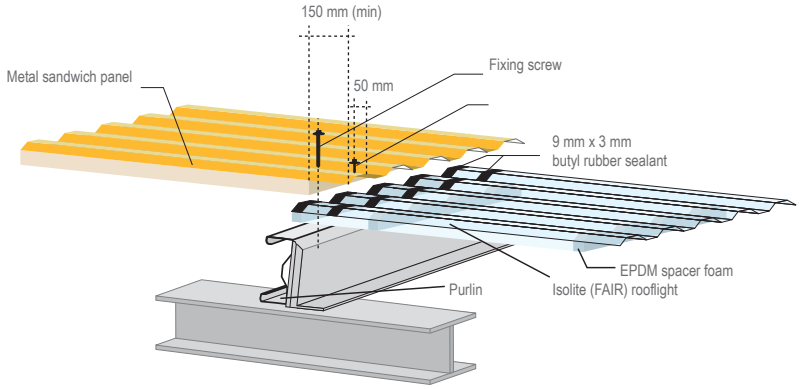
The polyethylene foam should rest on purlins.
For end laps the screwing should be done over the cut back without drilling through the spacer foam of the Isolite panel. A tail stitching screw is recommended. While assembling Isolite panels with 3 ribs, screws should not be applied over the middle ribs. At any time screws should not be fixed tightly to avoid deforming and damaging Isolite panels.



Tail stitching: Stitching screw with 29 mm diameter bonded washer.
2 screws per valley

32 mm screws should be applied at every intermediate purlin to be drilled through the spacer foam of the Isolite panel. Screws should be applied over the top of the ribs.

Due to the fact that the GRP sheets are 2 to 3 times thicker than the metal sheets it is not possible for those two different types of material to have exactly the same profile. For this reason it is recommended to order at longest possible lengths to minimize the number of end laps. The recommended purlin distance for Isolite panels is maximum 1,5 m.



Tail stitching: Stitching screw with 29 mm diameter bonded washer.
2 screws per valley

The recommended minimum roof slope is 7 %. For slopes of 7-10 %, minimum recommended end laps are 25 cm and for those over 10% slope they are 40 cm. The direction of assembly should be in the opposite direction of the main wind direction.

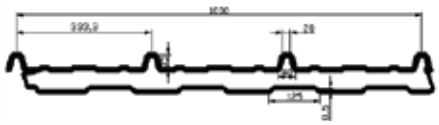
The packaging / Carrying

Unless required differently the panels are stacked on pallets and wrapped with nylon films. In order to minimize the stack height the panels are placed with profiled sides facing each other. Maximum number of panels that should be stacked on top of each other is 15-20 units depending on the weight and thickness of the panels.
Recommended way of moving panels is as shown on the left side pictures.

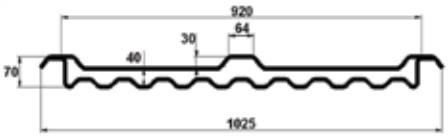
ISOLITE Profile Types

All Dimensions in Millimeters

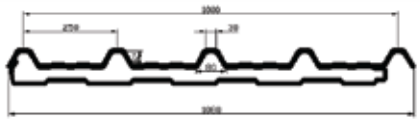
320420 KOD 35/1000



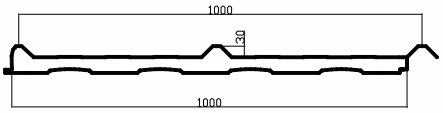
321421 KOD 915 R3 ASSAN MASTER



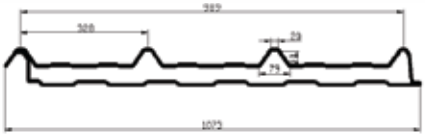
340440 KOD 42/250 ALUFORM



367467 KOD IZOPOLI EKOPANEL

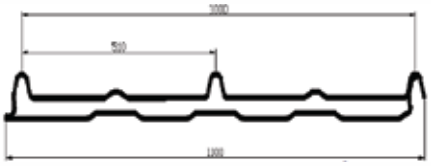


368468 KOD 40/75 IZOPOLI PRESTIGE



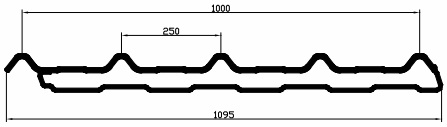
369469 KOD PANELSAN 50 - ÇATIPAN 1000 T

876976 KOD TEKİZ SPÇ 1015

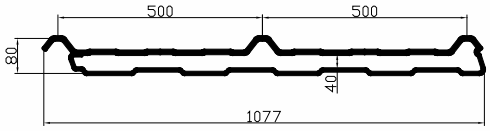


811801 KOD 1000 R7 ASSAN PROFILE

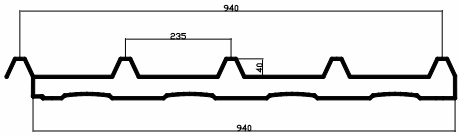
318420 KOD 5 RIBS



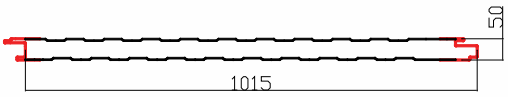
317420 KOD 3 RIBS



367467 KOD TEKİZ SPÇ 940



312218 KOD TEKİZ SPD 1015 CLADDING PANEL



Tooling costs will be charged for new profile type requirements which do not exist in our production program.

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POLSER
FRP PANELS INC.

10006 Sokak No: 56 Atatürk Organize Sanayi Bölgesi Cigli / IZMIR - TURKIYE 35620
Tel.: +90.232. 376 88 22 (pbx) Fax: +90.232. 376 70 58
www. polser.com - e-mail: info@polser.com

Certifications

TSE
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TS-EN 1013-2

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MFPA
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DIN 4102:B2

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Class 1 SAA

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