

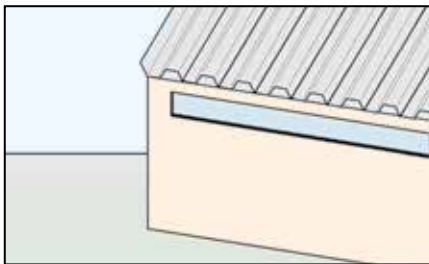
ISOLGRECA

PREFABRICATED THERMAL INSULATION PANELS TO REFURBISH ROOFS IN TRAPEZOIDAL SHEETING, MADE OF SELF-EXTINGUISHING EXPANDED POLYSTYRENE PRE-SHAPED IN TRAPEZOIDAL SHEETING COUPLED WITH WATERPROOFING MEMBRANE

GRANTS *LEED* CREDITS

CHARACTERISTICS				ENVIRONMENTAL						METHOD OF USE	
THERMAL INSULATION	ACOUSTIC INSULATION	WATERPROOF	REACTION TO FIRE	ECO GREEN	ASBESTOS FREE	TAR FREE	CHLORINE FREE	RECYCLABLE	NON DANGEROUS WASTE	EXHAUSTED OIL FREE	APPLY BY MECHANICAL FIXING

1 PROBLEM



The use of volumes protected with simple trapezoidal sheets is often changed, this requiring the integration of the thermal insulation of sheet metal featuring a profile that is difficult to coat with flat insulating sheets.

The same applies to damaged roofs that cannot be conveniently demolished and on which the seal must be restored.

2 SOLUTION

ISOLGRECA is a pre-shaped trapezoidal sheeting panel with lateral rabbets made of self-extinguishing sintered expanded polystyrene coupled hot to a 2 mm thick waterproofing membrane in elastoplastomer polymer-distilled bitumen, reinforced with rot-proof glass fibre with side and head overlaps. The flame can thus be used on the top surface without burning the insulator.

The panel is shaped to measure in order to match the profile of the metal sheet and obtain a flat surface on any design.

Sintered expanded polystyrene is an inexpensive insulation product that has been tested for years on roofs; it is prefabricated by joining it with the waterproof membrane, reducing its sensitivity to the heat of the flame

used to lay the waterproof covering, saving on insulation and laying costs.

ISOLGRECA is a thermal insulator that also reduces the sound of rain or hail under the sheet.

APPLICATION FIELDS

ISOLGRECA is applied on new and to be repaired metal roofs that must be waterproofed and/or insulated.

ISOLGRECA is a made-to-measure product that provides the values specified in the scheme at the back of the sheet. A range of shapes, both flat and curved, can be waterproofed and insulated. For curved surfaces, simply make some cuts on the lower face of the sheet.

As this is a product made on request, the thermal properties must be assessed by the purchaser in compliance with the calculation criteria under UNI10355 and EN-ISO6946. This is because these are sheets of uneven shape for which the thermal resistance must be calculated from time to time based on the selected profile.

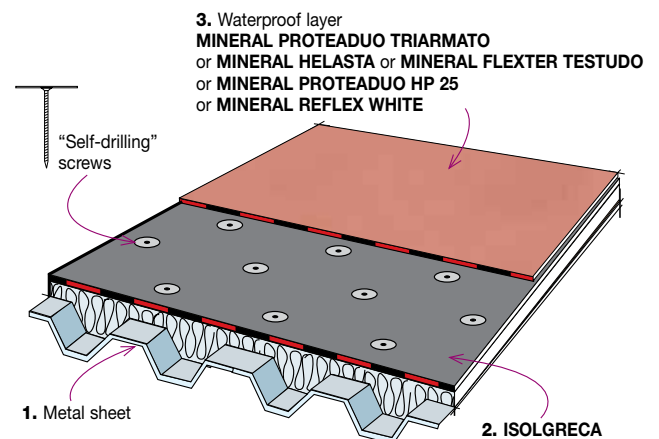
METHOD OF USE

The surface to be treated must be sufficiently regular, with sheets without ruptures and in general in such conditions to withstand the laying of the new panels, which must be well joined with the overlapping selvages according to the maximum sloping line.

The panels are stabilised to the existing structure through nailing by using special "self-drilling" screws for the support, made of trapezoidal sheet. The bolts will be fitted at the head with a 70 mm diameter washer. The number of nails per m² will depend on the state of the support and the exposure to wind.

In any case at least 4 nails per m² must be arranged.

A distilled bitumen-polymer waterproofing membrane reinforced with polyester non-woven fabric is used, preferably of the slated type with EC marking for single layer applications, across the overlaps of the layer below with 10 cm overlaps.



TECHNICAL CHARACTERISTICS

	Regulation	ISOLGRECA PSE 80	ISOLGRECA PSE 120
Intended use		- for all uses -	- for all uses -
Designation code	EN 13163	EPS-EN 13163-T(2)-L(3)-W(3)-S(5)-P(30)-DS(N)5-BS125-CS(10)80	EPS-EN 13163-T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)5-BS170-CS(10)120
Compression strength 10% compression	EN 826	≥80 KPa [CS(10)80]	≥120 KPa [CS(10)120]
Dimensional stability 48 h at 23°C at 90% R.H.	EN 1604	±0.5% [DS(N)5]	±0.5% [DS(N)5]
Bending strength	EN 12089	≥125 KPa [BS125]	≥170 KPa [BS170]
Perpendicular tensile strength of faces		-	-
Thermal conductivity λ	EN 12667	0.037 W/mK	0.035 W/mK
Thickness T(1) (mm)		60 65 70 75	60 65 70 75
Thermal resistance R _p (m²K/W)		As this is a product cut to measure, it must be calculated by the purchaser in compliance with UNI10355 and EN-ISO6946	As this is a product cut to measure, it must be calculated by the purchaser in compliance with UNI10355 and EN-ISO6946
Specific heat		1 200 J/kgK	1 200 J/kgK
Long term water absorption by immersion	EN 12087	<5%	<5%
Water vapour transmission	EN 12086	μ = 30÷70	μ = 30÷70
Reaction to fire	EN 13501-1	Euroclass E _{d2}	Euroclass E _{d2}

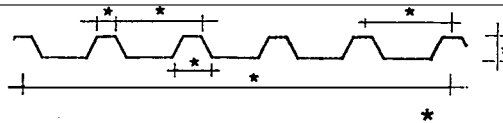
Specific characteristics of the polymer-distilled bitumen membrane

Impermeability	EN 1928-B	60 kPa	60 kPa
Permeability to vapour	EN 1931	μ = 20,000	μ = 20,000
Thermal conductivity		0.2 W/mK	0.2 W/mK
Type		V2	V2
Thermal capacity (KJ/K·m²)		2.60	2.60

Acoustic insulation index. Acoustic absorption index. Impact noise transmission index. Durability of reaction to fire, thermal resistance, compression resistance. **NPD**

SCHEME TO CUSTOMISE ISOLGRECA PANELS

Required measurements of the trapezoidal sheets to supply ISOLGRECA panels



The sheets described above are produced with sintered expanded polystyrene classified by EN13163 as type 80 and 120.

The numerous possible uses and the possible interference of conditions or elements beyond our control, we assume no responsibility regarding the results which are obtained. The purchasers, of their own accord and under their own responsibility, must establish the suitability of the product for the envisaged use.



ANIT associates

The data in this publication is the result of laboratory tests or observations on site and this does not guarantee the repeatability of the results in equivalent systems.

• FOR ANY FURTHER INFORMATION OR ADVICE ON PARTICULAR APPLICATIONS, CONTACT OUR TECHNICAL OFFICE • IN ORDER TO CORRECTLY USE OUR PRODUCTS, REFER TO INDEX TECHNICAL SPECIFICATIONS •

<p style="font-weight: bold; color: blue;">Construction Systems and Products</p> <p>Via G. Rossini, 22 - 37060 Castel D'Azzano (VR) - Italy - C.P.67 T. +39 045 8546201 - F. +39 045 518390</p>	<p>Internet: www.index-spa.com Informazioni Tecniche Commerciali tecom@indexspa.it Amministrazione e Segreteria index@indexspa.it Index Export Dept. index.export@indexspa.it</p>		<p style="font-weight: bold; font-size: 1.2em;">9001</p>	<p style="font-weight: bold; font-size: 1.2em;">14001</p>	
---	--	--	--	---	--

The figures shown are average indicative figures relevant to current production and may be changed or updated by INDEX at any time without previous warning. The advice and technical information provided, is what results from our best knowledge regarding the properties and the use of the product. Considering