ENERGYSHIELD.

FIBRAN*xps* **ETICS GF**

Thermal insulation extruded polystyrene boards with relief surfaces and high vapour diffusion for façade insulation

Product description

FIBRAN*xps* ETICS GF is a rigid water-resistant insulation board made from extruded polystyrene with smooth surface on both faces.

FIBRAN*xps* ETICS GF conforms to the European Regulation 305/2011 (CPR), which replaced the European Directive 89/106/EEC, and is produced according to the European Standards EN 13164 (Thermal insulation products for buildings - Factory made products of extruded polystyrene foam (XPS) and EN 13172.

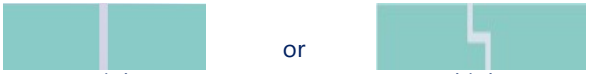
It is certified by international independent Notified Bodies and carries CE marking.

Extruded polystyrene insulation boards **FIBRAN*xps* ETICS GF** are produced with the extrusion of polystyrene foam and are characterized by very dense closed micro-cell structure.

The minuscule, thin, rigid and closed polystyrene cells contain enclosed inert gas and air, such that they achieve very high insulating capacity, whilst also remaining dry in environments with increased moisture (basements, inverted roofs, indoor swimming pools, etc.).

It is the only insulating material with especially high mechanical strength, water-resistant yet with balanced water vapour diffusion resistance.

The product is available with the following edge profiles:



I (straight) L (shiplap)

Advantages

- Excellent thermal insulation
- High mechanical compressive and tensile strength
- Water-resistant and non-hygroscopic
- Light and easy-to-handle
- Resistant to vibrations
- Fully recyclable (100%)
- Friendly to the environment and the end user
- 100% CFC-free and HCFC-free
- Zero Ozone Depletion Potential (ODP = 0)
- Zero Global Warming Potential (GWP = 0)

Applications

The rigid extruded polystyrene boards **FIBRAN*xps* ETICS GF** are suitable for application in all types of building constructions, even in wet environments and applications with increased compressive and tensile loads.

- External thermal insulation of walls with thin decorative renders, **(ETICS)**
- Façade insulation with adhered cladding of decorative tiles, stone or bricks
- Insulation of reinforced concrete elements (retaining walls, columns, beams, slabs)
- Insulation of thermal bridges (balconies, openings, beams, columns)

Packaging

Thickness [mm]	Width [mm]	Length[mm]	Boards/ package [pc]	Quantity/ package [m^2]
20	600	1000	20	15,00
30	600	1000	14	8,40
40	600	1000	10	6,00
50	600	1000	8	4,80
60	600	1000	7	4,20
70	600	1000	6	3,60
80	600	1000	5	3,00
90	600	1000	4	2,40
100	600	1000	4	2,40

* Other dimensions are available upon request

FIBRAN*xps* ETICS GF

Technical Data Sheet

Designation code:
XPS(Extruded Polystyrene) **EN 13164 - T3 - CS(10\Y)300 - DS(70,90) - TR400 - WL(T)1,5**

Technical Characteristics	Symbol EN 13164	Unit	Value	EN Standard
Surface	Relief (Waffle) surface			
Edges profile lengthwise/widthwise	I (straight) / I (straight) or L (shiplap) / L (shiplap)			
Dimensions	-	mm	1000 x 600	EN 822
Nominal thickness	d_N	mm	20 - 100	EN 823
Thickness tolerance	T	class	T3 (±1 mm < 50mm ±1 mm ≥ 50mm)	EN 13164
Declared Thermal Conductivity Coefficient at 10°C (after 25 years)	λ_D	W/(m* K)	0,033 ≤ 60mm 0,034 > 60mm	EN 13164 EN 12667
Compressive Stress at 10% thickness deformation	CS(10)	kPa	200 - 300	EN 826
Maximum design load	-	KN/m^2	<130	EN 13164
Long-term water absorption by total immersion	WL(T)	Vol. %	1,5	EN 12087
Water absorption by diffusion	WD(V)	Vol. %	-	EN 12088
Water vapor diffusion resistance factor , μ	MU	-	50	EN 12086
Tensile strength perpendicular to faces	TR	kPa	>400	-
Operating temperature	-	°C	από -50 μέχρι +75	EN 13501-1
Fire Classification	-	Class	E	EN 822

Thermal Resistance R_D

Nominal thickness	d_N	mm	20	30	40	50	60	70	80	90	100	EN 823
Thermal resistance	R_D	m^{2}K/W	0,60	0,90	1,20	1,50	1,80	2,05	2,35	2,60	2,90	EN 13164

Certifications

All **FIBRAN*xps*** extruded polystyrene products meet the QUALITY and SAFETY requirements of European Standards.

The quality of FIBRANxps products is assured in accordance with EN 13164 and EN 13172 standards. These standards establish the type and frequency of measurements executed both by independent and recognized institutions, as well as by FIBRAN laboratories.

CE Certification

All extruded polystyrene products **FIBRAN*xps*** conform to the European Regulation 305/2011 (CPR), which replaced the European Directive 89/106/EEC. In compliance with the above Regulation, all types of extruded polystyrene **FIBRAN*xps*** carry CE marking, as defined in the European Standard EN 13164 which refers to extruded polystyrene products for the insulation of building applications. According to the above standard, each insulation product must be assigned a Designation Code declaring its technical characteristics.

In addition, FIBRAN S.A. has issued Declarations of Performance (DoP) for each different product type and thickness, which are available in the company's website: http://www.fibran.gr/dop/.

The Initial Type Tests as well as the regular quality testing of **FIBRAN*xps*** products are conducted by the following independent European notified certification bodies:

- Forschungsinstitut fór Wärmeschutz e.V. München (FIW):

Identification Number 0751

- Materialprüfanstalt fór das Bauwesen Hannover (MPA BAU):

Identification Number 0764

- Zavod za gradbeništvo Slovenije (ZAG Ljubljana):

Identification Number 1404

ISO 9001:2015 Certification

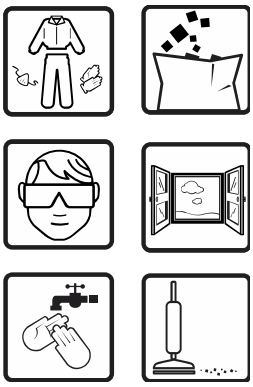
The quality management system of FIBRAN S.A. complies with EN ISO 9001:2015 for the design and manufacture of Extruded Polystyrene (XPS), as certified by the independent body TÜV NORD CERT, with initial Certificate Registration No. 04 100 960680.

ISO 14001:2015 Certification

FIBRAN S.A. implements a system of environmental management according to EN ISO 14001:2015 for the design and production of extruded polystyrene and stonewool. Certification is provided by independent body TÜV NORD CERT, with initial Certificate Registration No. 04 216 0028.

HANDLING AND STORAGE

FIBRANxps thermal insulation boards are resistant to cold, rain and snow, but not to long-term exposure to ultraviolet radiation. Therefore, the products' packaging should only be removed just before their installation. In case the original packaging film is torn, the boards must be protected from direct sunlight. Although **FIBRANxps** boards are among the toughest materials on the market, contact with sharp objects may damage or deform them.



FIBRANxps boards may be used at maximum temperature of 75°C. However, if they are stored outdoors and exposed to direct sunlight or wrapped in dark packaging material, deformation of the boards may occur due to the high temperatures that develop.

FIBRANxps boards must not come into contact with solvents such as petrol, tar and formic acid, or with gases such as methane, ethane, propane and butane. Prior to applying a cleaning product on the boards' surface, it is recommended to first test the material's resistance to the particular cleaning agent. Please consult our Technical Department, if in doubt.

FIBRANxps boards are moderately resistant to substances such as mineral and food oils, paraffin, phenol and fats; this means that long-term exposure to these substances may affect their surface appearance or structure.

FIBRANxps boards are highly resistant to water-soluble bitumen products, lime, cement, lime plaster, sea-water, chlorines, most acids, inorganic gases, alcohol and silicon. In case of doubt, a preliminary test is recommended.

APPLICATION AND PROTECTION

During the installation of **FIBRAN*xps*** boards, all construction requirements for the correct application of the insulation should be considered. **FIBRAN*xps*** boards must be applied on flat and clean surfaces. They may easily be cut with a sharp standing knife or hot wire. The edges of **FIBRAN*xps*** boards are formed with «I» straight, «L» shiplap or «D» tongue-and-groove profiles. When applying the boards in a single layer, boards with «L» or «D» edge profiles are recommended in order to avoid thermal bridges that may occur at the joints.

Naked flame torches or similar appliances should not be used during the application of extruded polystyrene **FIBRAN*xps*** boards. Wherever **FIBRAN*xps*** boards are to be applied over basement waterproofing membranes, do not use mechanical anchors but **FIBRAN*stick*** auto adhesive tapes. When applying **FIBRAN*xps*** boards on large surfaces, especially on warm flat roofs, it is necessary to construct expansion joints with the use of stonewool and elastic sealing mastic.

When cutting **FIBRAN*xps*** Extruded Polystyrene boards with hot wire, applicators should take all necessary self-protection measures (working suit, gloves, goggles).

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FIBRAN S.A.
6th km Thessaloniki - Oreokastro Rd.
P.O. Box 40306, A.C. 564 10
Thessaloniki, Greece
Tel. +30 2310 682 425 , 692 700
Fax. +30 2310 683 131

info@fibran.gr
www.fibran.gr