fibran®

200

Product Catalogue

FIBRAN*geo*

Stonewool

Thermal insulation, sound insulation
and fire protection products for **building** applications

FIBRAN*geo* stonewool building insulation.
Natural and hard like a stone!

FIBRAN*geo* stonewool products are industrially produced from molten rock spun into fibres. They are classified as mineral wool products for use in building insulation, according to the European Standard EN 13162 (Mineral Wool insulation products for buildings).

All FIBRAN*geo* stonewool insulation products meet the QUALITY and SAFETY requirements of the European Standards.

Stonewool insulation is a natural inorganic fibrous material, widely recognised for its thermal and sound insulating properties, as well as its excellent performance towards fire protection.

FIBRAN*geo* stonewool insulation is a natural inorganic for its thermal and sound insulating properties, as well

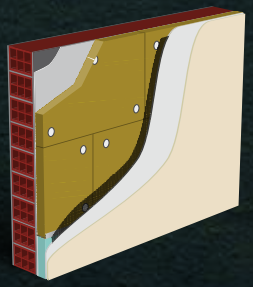
FIBRAN*geo* is produced from mineral rock, initially fused in an electric furnace at 1520°C and then spun into fibres. The use of electric furnace technology for its production allows for the precise control of the melt's temperature, in comparison to the blast furnace method employed by more than 90% of stonewool manufacturers. The maintenance of steady temperatures during the melting process ensures the fibres' dimensional stability and provides excellent technical characteristics to the final products. Moreover, non-use of fossil fuels (e.g. coke) as a main production fuel minimises polluting gas emissions in the environment.

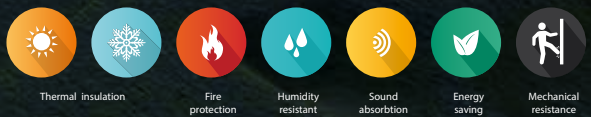
Once past the spinning phase, the loose stonewool fibres, with the addition of adhesive resin, oil and special silicon compounds that provide hydrophobicity, become cohesive, elastic and water-repellent.

FIBRAN*geo* stonewool is formed in boards, rolls and loose fill in a variety of dimensions, and is, finally, packed.

Boards and rolls may also be manufactured with facings.

fibrous material, widely recognised
as its excellent performance towards fire protection.





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Advantages of FIBRAN*geo*

FIBRAN*geo* **stonewool** is the material which offers insulation against undesired **thermal** losses & gains, **fire** hazards and **noise** pollution! Therefore, with the use of a single insulation material, the building is shielded against all these problems/issues, while at the same time achieving excellent **passive ventilation** and remaining **environmentally** friendly.

Thermal insulation
Excellent thermal insulation, with a very low thermal conductivity coefficient and maximum thermal resistance even at high temperatures. The fibres' softening temperature is over 1.000°C and their binder starts to evaporate when its temperature exceeds 200 °C, the materials' insulating properties remaining unchanged. Therefore, FIBRAN*geo* products are also suitable for applications where high temperatures occur.

Fire Protection
Non-combustible materials (Class A1 in accordance to EN 13501-1) which maintain their insulating properties in high temperatures, contribute to the inhibition of the spread of fire, saving lives and protecting built structures and properties.
Therefore, they constitute key parts of fire resistant walls, floors, roofs, prefabricated panels, doors or other passive fire protective systems.

Sound insulation
High sound absorption coefficient and optimum air flow resistivity. These properties provide increased sound reduction and improved acoustic performance of spaces. Facings maximise sound reduction required in certain frequencies.
High compressive strength and very low dynamic stiffness, i.e. very rigid, yet efficiently resilient. These properties reduce impact noise transmission, such as in floating floor applications.

FIBRAN*geo* stonewool is 100% compatible with other insulating materials, such as FIBRAN*xps* or FIBRAN*eps*. All these materials can be used at the same project, to satisfy the technical requirements of different building applications such as basement, walls, pitched roof and terrace.

Passive Ventilation

Open hive structure materials with water vapour diffusion resistance similar to the resistance of air (μ=1). These properties enhance the construction elements' breathability, by allowing the flow of very small quantities of air and vapour through the building envelope, due to air pressure differences occurring between indoors and outdoors (Passive Ventilation).

Ventilation replenishes oxygen, regulates the spaces' relative humidity and removes unpleasant smells, smoke, dust, airborne bacteria and carbon dioxide.

FIBRAN*geo* products assure the maximum passive ventilation of buildings, satisfying the requirements of Bioclimatic Design.

Water Repellence - non-hygroscopic

The fibres' hydrophobicity renders FIBRAN*geo* products water repellent and non-hygroscopic. Stonewool fibres are not affected by moisture or water. If stonewool gets wet, it dries fast via passive ventilation and fully regains its initial properties. Further, it does not accumulate moisture, when in contact with other wet parts of the construction.

Resistant to mechanical loads

FIBRAN*geo* stonewool products, depending on the fibres' knit and orientation, have high mechanical strength even in relatively low densities.

Natural, inorganic, odourless, chemically inert (practically neutral Ph)

It does not chemically erode construction elements it remains in contact with, nor is it eroded by them, even in conditions of increased humidity.

Lightweight, easy to handle, cut and install

Resistant to vibrations

Excellent dimensional stability

Does not allow the development of micro-organisms, insects or rodents

Recyclable

Friendly to the environment and to the end user

Applications of FIBRAN*geo*

FIBRAN*geo* products are suitable for use in all building types. They are suitable for the insulation of all building elements, such as walls, floors, ceilings, roofs, terraces, building equipment, mechanical installations, sound insulating and passive fire prevention systems.

ROOFS
FACADE
DRY
FLOORS
ROLLS

For selection of the suitable product type, please refer to the Product Selector by Application on page 07.

Facings of FIBRAN*geo*

FIBRAN*geo* products are available with the following standard facings to meet particular application requirements:

AX: Aluminium kraft paper foil reinforced with fibreglass mesh
AL: Aluminum foil reinforced with fibreglass mesh
YM: Black non-woven fibreglass fleece
YA: White non-woven fibreglass fleece
XA: Kraft paper
BIT: Bitumen coating

FIBRAN *Solutions*

FIBRAN offers solutions for each application:
FIBRAN*roof*, FIBRAN*wall*, FIBRAN*floor*, FIBRAN*dry*

Refer to the specific chapter for more information.

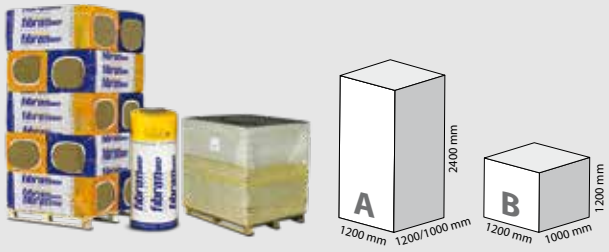
FIBRAN*tools*

FIBRAN offers a wide range of quality tools, for DRY construction & insulation applications.

Packaging of FIBRAN*geo*

FIBRAN*geo* products are supplied packed. The appropriate number of boards and individual rolls are shrink-wrapped in PE film, in packages and rolls. The appropriate number of packages is shrink-wrapped weather tightly, with an extra outer PE film, in pallets. For details about packages and pallets for particular FIBRAN*geo* product types, please refer to pages 08 to 20 (www.fibran.gr).

A: 1200 x 2000 x 1200/2400mm
B: 1200 x 1000/2000 x 1200 mm



Types of FIBRAN*geo*

The standard unfaced FIBRAN*geo* product range is:

Boards with knit fibres and 4-sides L-cut: BP-50-L, BP-60-L, BP-70-L
Boards with knit fibres / BP series: BP-80, BP-70, BP-60, BP-50, BP-40, BP-30, BP-ETICS, BP-ETICS PLUS
Boards / B series: B-051, B-001, B-570, B-050, B-040
Rolls / R series: R-050, R-040
Loose fill: XS-LOOSE

Certifications of FIBRAN*geo*

0751

Gesellschaft

All FIBRAN*geo* stonewool insulation products meet the QUALITY and SAFETY requirements of the European Standards.

CE certification

All FIBRAN*geo* stonewool insulation products conform to the European Regulation (CPR) 305/2011, which replaced the European Directive 99/91/ EEC. In compliance with CPR, all types of FIBRAN*geo* stonewool products hold the CE marking and are in conformity with the European Norm EN13162, which refers to mineral wool insulation products used in building applications. Also, FIBRAN has created the Declaration of Performance for every product type which can be downloaded from: http://www.fibran.gr/dop. In accordance with the abovementioned European Norm, every insulation product acquires a designation code, which declares its technical characteristics.

For example:

MW - EN 13162 – Ti - CS(10)i – TRi - PL(5)i – CPi – WS - WL(P) – MUi – SDi - AFri – AWi

• MW – Factory made mineral wool insulation material, industrially manufactured from molten rock, slag or glass.

• EN 13162 – The European Standard number.

• Ti – Thickness Tolerances. Classes for thickness tolerances from the nominal thickness (e.g. Class T4 : - 3mm + 5mm).

• CS(10)i – Minimum compressive stress at 10% thickness deformation (kPa).

• TRi – Minimum tensile strength perpendicular to faces (kPa).

• PL (5)i – Point Load (N). Minimum compressive load (applied on a small area of 50 cm^2) at 5 mm thickness deformation.

• CPi – Compressibility (mm). The max. difference between the thickness d_L, under a light load of 0.25 kPa, and the thickness d_B, under a load of 2 kPa (+ - 48 kPa).

• WS – Short Term Water Absorption (kg/m^2) with partial immersion in water for 24 hours <1 kg/m^2.

• WL(P) – Long Term Water Absorption (kg/m^2) with partial immersion in water for 28 days <3 kg/m^2.

• MUi – Water Vapour Transmission. The maximum ratio (factor μ) of water vapour diffusion resistance of the material to the resistance of an equal thickness of air.

• SDi – Dynamic Stiffness (MN/m^3). The maximum ratio (factor s') of dynamic compressive stress to dynamic change in thickness.

• AFri – Air flow resistivity (kPa s/m^2). The minimum air flow resistance coefficient of 1m thickness material >5 kPa s/m^2.

• AWi -Weighted Sound Absorption Coefficient. The value of the sound absorption coefficient αw in the frequency of 500Hz, measured on the standard weighted sound absorption curve.

The **thermal conductivity λ_D** and the **thermal resistance R_D,** as well as the **fire classification** should also be declared.

• λ_D - Declared Thermal Conductivity (W/mK). The maximum expected nominal thermal conductivity during the material's working life, at mean temperature 10 °C (greater than the test results), in accordance with EN 13162.

Thermal conductivity λ (W/mK) is the heat amount transmitted through a layer of material, with 1 m^2 surface area and 1 m thickness, when a constant temperature difference of 1 K is maintained between the layer's faces.

• R_D - Declared Thermal Resistance (m^2K/W). The minimum expected nominal thermal resistance during the material's working life, at mean temperature 10 °C (less than the test results), in accordance with EN 13162.

Thermal resistance R (m^2K/W) is the ratio of the material's thickness d to the material's thermal conductivity λ.

• Fire Classification – Building materials are classified depending on their reaction to fire in Classes A1 (non-combustible), A2, B, C, D, E to F (no performance determined), in accordance with EN 13501-1.

0751

The quality of FIBRAN*geo* products is assured in accordance with EN 13162 and EN 13172 standards.
These standards establish the type and frequency of measurements executed both by recognized and independent institutions, as well as by FIBRAN laboratories.

EUCEB Certification

All FIBRAN*geo* stonewool insulation products also carry the certification mark EUCEB (European Certification Board for Mineral Wool Products). EUCEB is an independent organisation whose procedures ensure compliance of mineral wool insulation products with the Directive's 97/69/EC, Note Q, regarding their fibres biosolubility and their non-classification as 'carcinogenic' materials.

Moreover, according to EC Regulation 790/2009 (August 10, 2009) stonewool insulation products are no longer classified as products causing skin irritation (R38).

ISO 9001:2008 Certification

The quality management system of FIBRAN S.A. complies with EN ISO 9001:2008 for the design and manufacture of Mineral Wool (MW), as certified by the independent body TÜV NORD CERT, with initial Certificate Registration No. 04 100 960680.

FIBRAN S.A. shall not be held liable for any damage caused by improper use of the products, transportation, storage and handling.

Range of FIBRAN*geo* stonewool products

Product Type	Symbol according to EN 13162	Unit	BP - 80	BP - 70	NEW BP - 70-L	BP - 60	NEW BP - 60 - L	BP - 50	NEW BP - 50 - L	BP - 40	BP - 30	BP - ETICS	NEW BP - ETICS PLUS	B - 051	B - 001	B - 570	B - 050	B - 040	B - 030	R - 050 **	R - 040 **	EN Standard
Technical data																						
Thickness *	d_N	mm	50-200	40-220	120-220	40-250	120-250	30-280	30-280	30-280	30-300	30-300	40-300	20-200	20-300	30-300	30-300	40-300	50-300	30-60	30-60	EN 823
Thickness Tolerance	Ti	Class	T7	T7	T7	T7	T7	T7	T7	T7	T7	T5	T5	T6*** /T4	T4	T4	T4	T4	T4	T4	T4	EN 13162
Length *	L	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1000	1000	1200	1200	1200	1200	1200	1200	6000-10000	6000-10000	EN 822
Width *	B	mm	600 2000	600 2000	600 2000	600 2000	600 2000	600 2000	600 2000	600 2000	600 2000	600	600	600	600	600	600	600	600	1000	1000	EN 822
Thermal conductivity declared at 10° C	λ_D	W/mK	0.039	0.039	0.039	0.037 -0.039	0.037	0.037	0.037	0.036	0.036	0.035	0.034	0.035	0.033	0.033	0.034	0.034	0.035	0.035	0.035	EN 13162 EN 12667 EN 12939
Fire classification	-	Class	A1 (non combustible)																			EN 13501-1
Softening temperature	-	°C	> 1000 °C																			DIN 4102-17
Specific heat capacity	C	kJ/kgK	1.03																			ISO 10456
Compressive stress at 10% t hickness deformation	CS(10)i	kPa	80	70	70	60	60	50	50	40	30	30	20	-	-	-	-	-	-	-	-	EN 826
Point load for 5mm thickness deformation	PL(5)i	N	800	700	700	600	600	600	600	500	400	300	200	-	-	-	-	-	-	-	-	EN 12430
Compressibility (c_p=d_L-d_B)	CPi	mm	-	CP2	CP2	CP2	CP2	CP2	CP2	CP2	CP2	-	-	CP3***	-	-	-	-	-	-	-	EN 13162 EN 12431
Design compressive load	-	kN/m²	20	18	18	15	15	13	13	10	8	-	-	7***	-	-	-	-	-	-	-	EN13162
Tensile strength perpedicular to faces	TRi	kPa	20	20	20	20	20	15	15	15	10	10	7,5	-	-	-	-	-	-	-	-	EN 1607
Tensile strength parallel to faces	σ_t	kPa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	12	10	5	5	EN 1608
Short term water absorption (24 hours)	WS	kg/m²	< 1																			EN 1609
Long term water absorption (28 days)	WL(P)	kg/m²	< 3																			EN 12087
Water vapour diffusion resistance factor (μ)	MUi	-	1																			EN 12086
Air flow resistivity (r)	AFr i	kPa s/m²	50	50	50	50	50	50	50	50	50	50	50	50	50	30	15	15	10	15	15	EN 29053
Weighted sound absorption coefficient (α_w)	d_N	mm	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	EN ISO 354 EN ISO 11654
	AWi	-	-	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1	1	1	1	1	1	1	
Dynamic stiffness (s')	d_N	mm	-	40	40	40	40	30	30	30	30	-	-	20	20	-	-	-	-	-	-	EN 29052-1
	SDi	MN/m³	-	33	33	33	33	33	33	33	33	-	-	18	18	-	-	-	-	-	-	

* other dimensions available upon request **upon demand *** Applies only to thicknesses of 20-30mm

PRODUCT SELECTOR FIBRAN*geo*

Application Area / Product Type	BP-80	BP-70	BP-70-L (NEW)	BP-60	BP-60-L (NEW)	BP-50	BP-50-L (NEW)	BP-50-BIT	BP-40	BP-30	BP-ETICS	BP-ETICS PLUS (NEW)	B-051	B-001	B-570	B-570- AX	B-570-YM	B-050	B-040	B-030	R-050 **	R-050-AX/AL **	R-040 **	R-040-AX/AL **
FLAT ROOFS																								
External insulation of concrete roof / steel deck with polymer waterproofing membrane on insulation	•	•	•	•	•	•	•		•	•														
External insulation of concrete roof / steel deck with bitumen waterproofing membrane on insulation								•																
Insulation on roof with floating concrete screed	•	•	•	•	•	•	•		•	•			•											
Exposed internal insulation of steel deck																•								
PITCHED ROOFS																								
Metal stonewool composite roof panel	•	•	•	•	•	•	•		•	•														
Twin-skin metal roof cladding (on site construction) with core insulation														•	•			•	•	•	•		•	
Insulation between roof frame elements (rafters, beams, joists)														•	•	•	•	•	•	•	•	•	•	•
Insulation on attic ceiling lining														•	•	•	•	•	•	•	•	•	•	•
PILOTIS - CEILINGS																								
Pilotis external thermal insulation composite system (ETICS)											•	•												
DRY CONSTRUCTION																								
Pilotis external insulation with dry board cladding														•	•	•	•	•	•	•				
Insulation of dry construction ceiling (gypsum board, etc.)														•	•	•	•	•	•	•	•	•	•	•
Insulation on non-perforated suspended ceiling lining														•	•	•	•	•	•	•	•	•	•	•
Insulation on perforated ceiling lining																•	•					•		•
FLOORS																								
Floating concrete screed floor (e.g. marble, tile, industrial floor finish)	•	•		•		•			•	•			•											
Floating dry floor (e.g. solid wood/laminate flooring finish)	•	•		•		•			•	•			•											
Insulation between timber floor joists														•	•		•	•	•	•	•		•	
WALLS																								
Metal stonewool composite wall panel	•	•		•		•			•	•														
Twin-skin metal wall cladding (on site construction) with core insulation														•	•			•	•		•		•	
Masonry cavity wall with core insulation														•	•			•	•					
Insulation of ventilated facade (e.g. dry board cladding, marble, ceramic tile, metal panels)											•	•		•	•	•	•							
Wall external thermal insulation composite system (ETICS)											•	•												
DRY CONSTRUCTION																								
Partition wall with core insulation (gypsum board, etc.)														•	•			•	•	•	•		•	
Insulation of masonry wall with dry lining/cladding (gypsum board, cement board, etc.)														•	•			•	•	•	•		•	
Insulation of wall with perforated dry lining (gypsum board, etc.)																•	•					•		•
SPECIAL APPLICATIONS	For special applications special products can be produced																							

L = with **NEW L-CUT**

**upon demand

Product Selector presents the most indicative building solutions. For any other solution please contact the technical support department of FIBRAN S.A.

FIBRANgeo **ROOF *solution***: single layer up to 300 mm

WITH NEW L-cut

FIBRANgeo **BP-50**

FIBRANgeo **BP-50 L**

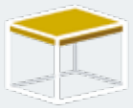
MW-EN 13162-T7-CS(10)50-TR15-PL(5)600-WS-WL(P)-MU1-SD33-CP2-AW0,95-AFr50

Thickness [mm]	Boards /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
40	62	148,80	1,05					
50	50	120,00	1,35					
60	42	100,80	1,60					
70	36	86,40	1,85					
80	31	74,40	2,15					
100	25	60,00	2,70	>15	**0,037**	>600	**>50**	A1
120	21	50,40	3,20					
140	18	43,20	3,75					
160	16	38,40	4,30					
180	14	33,60	4,85					
200	12	28,80	5,40					

Board dimension: 1200 x 2000 mm. Minimum thickness for BP-50 L = 120mm.
Also available in dimensions 1200 x 600/1000 mm and thicknesses greater than 200 mm.

FIBRANgeo **BP-70**

FIBRANgeo **BP-70 L**



MW-EN 13162-T7-CS(10)70-PL(5)700-TR20-CP2-WS-WL(P)-MU1-SD35-AW0,95-AFr60

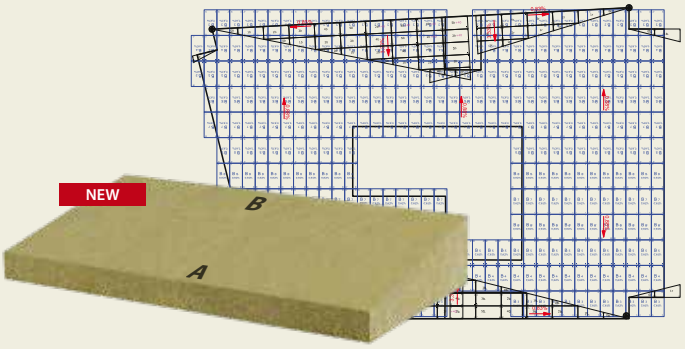
Thickness [mm]	Boards /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
40	62	148,80	1,00					
50	50	120,00	1,25					
60	42	100,80	1,50					
70	36	86,40	1,75					
80	31	74,40	2,05					
100	25	60,00	2,55	>20	**0,039**	>700	**70**	A1
120	21	50,40	3,05					
140	18	43,20	3,55					
160	16	38,40	4,10					
180	14	33,60	4,60					
200	12	28,80	5,10					

Board dimension: 1200 x 2000 mm. Minimum thickness for BP-70 L = 120mm.
Also available in dimensions 1200 x 600/1000 mm and thicknesses greater than 200 mm.

FIBRANgeo **ROOF *solution***: boards with ready, factory-made inclination

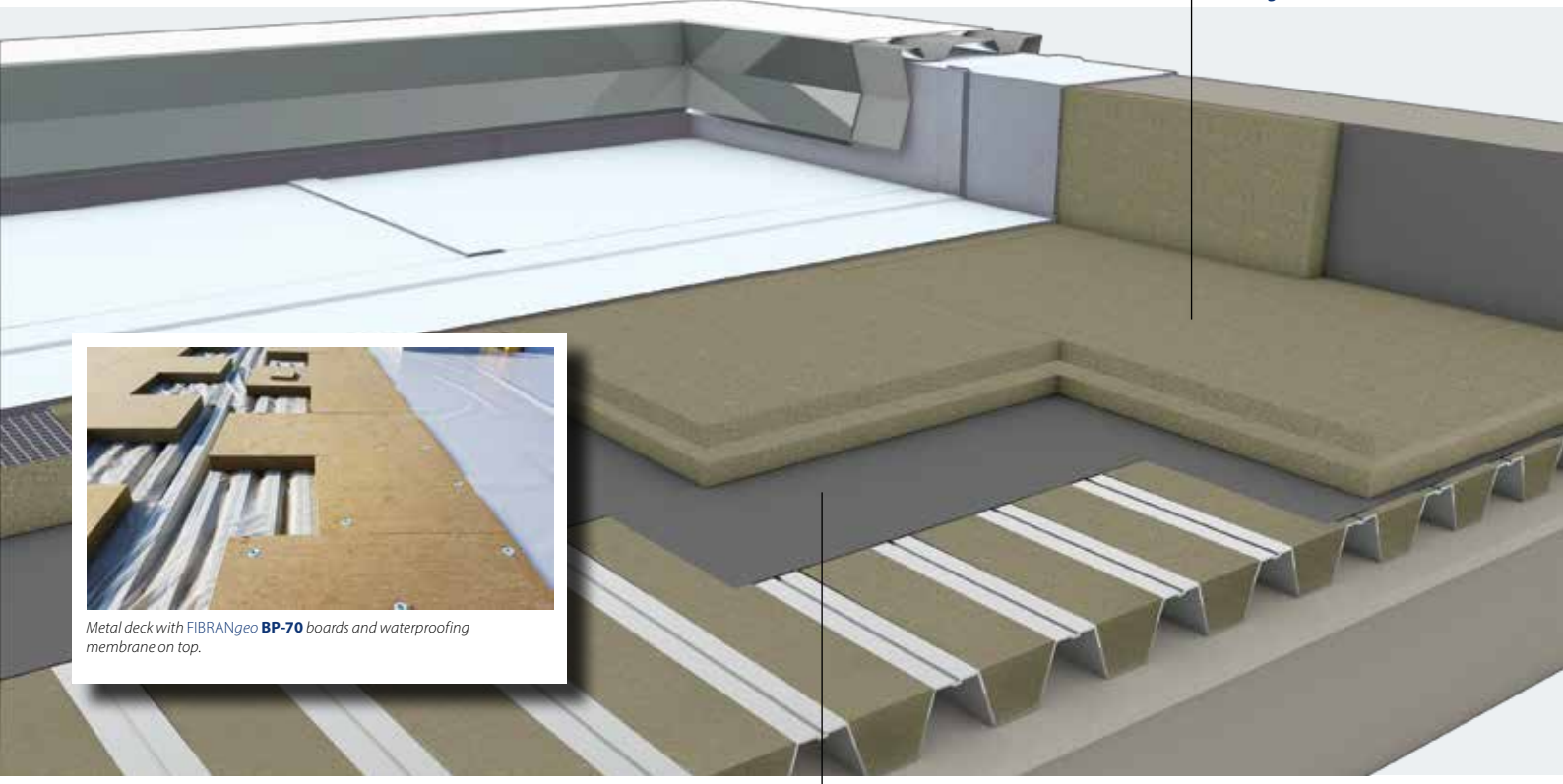
FIBRANgeo **INCLINE BOARDS**

The **FIBRANgeo INCLINE system** is an advanced, custom-made system of modular elements that consists of factory-made boards with predefined inclination.
The **FIBRANgeo INCLINE** stonewool boards are prepared in the factory according to the drawings of the roof area, taking into consideration water drainage and plan details. The boards arrive on site pre-cut with the desired inclination, each with clear lettering for easy installation.



FIBRAN*geo* **ROOF *solution*** Metal deck with Stonewool

FIBRAN*geo* **BP-50** and **BP-50-L,**
FIBRAN*geo* **BP-60** and **BP-60-L,**
FIBRAN*geo* **BP-70** and **BP-70-L**



Metal deck with FIBRAN*geo* **BP-70** *boards and waterproofing membrane on top.*

FIBRAN*skin* **BARRIER** membrane

FIBRAN*geo* **SI-080 TRAPEZOID**

The trapezoid elements **FIBRAN*geo* SI-080 TRAPEZOID** stonewool have been specially developed for installation in the channels (valleys) of the trapezoid metal roof or panel sheets, thus providing extra thermal insulation and increased mechanical integrity of the insulation system. The elements are offered in standard dimensions or cut-to-measure according to project.

FIBRAN*geo* **ROOF *solution***: boards with asphaltic membrane

FIBRAN*geo* **BP-50-BIT**

Boards with bituminous coating

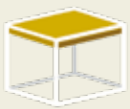
MW-EN 13162-T7-CS(10)50-TR15-PL(5)600-WS-WL(P)-SD33-CP2

Thickness [mm]	Boards / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
40	29	34,80	1,05					
50	24	28,80	1,35					
60	20	24,00	1,60					
70	17	20,40	1,85					
80	15	18,00	2,15	>15	**0,037**	>600	**>50**	F
100	12	14,40	2,70					
120	10	12,00	3,20					
140	8	9,60	3,75					
160	7	8,40	4,30					

Board dimension: 1200 x 1000 mm

FIBRAN*geo* **BP-70-BIT**

Boards with bituminous coating

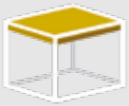


MW-EN 13162-T7-CS(10)70-TR20-PL(5)700-WS-WL(P)-SD33-CP2

Thickness [mm]	Boards / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
40	29	34,80	1,05					
50	24	28,80	1,35					
60	20	24,00	1,60					
70	17	20,40	1,85					
80	15	18,00	2,15	>20	**0,039**	>700	**>70**	F
100	12	14,40	2,70					
120	10	12,00	3,20					
140	8	9,60	3,75					
160	7	8,40	4,30					

Board dimension: 1200 x 1000 mm

FIBRANgeo BP-30



MW-EN 13162-T7-CS(10)30-TR10-PL(5)400-WS-WL(P)-MU1-SD33-CP2-AW0,95-AFr50

Thickness [mm]	Boards /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
40	62	148,80	1,10	>10	**0,036**	>400	**>30**	A1
50	50	120,00	1,35					
60	42	100,80	1,65					
70	36	86,40	1,90					
80	31	74,40	2,20					
100	25	60,00	2,75					
120	21	50,40	3,30					
140	18	43,20	3,85					
160	16	38,40	4,40					
180	14	33,60	5,00					
200	12	28,80	5,55					

Board dimension: 1200 x 2000 mm
(also available 1200 x 2000 mm loose boards on pallets)

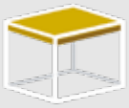
FIBRANgeo BP-40

MW-EN 13162-T7-CS(10)40-TR15-PL(5)500-WS-WL(P)-MU1-SD33-CP2-AW0,95-AFr50

Thickness [mm]	Boards /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
40	62	148,80	1,10	>20	**0,036**	>500	**>40**	A1
50	50	120,00	1,35					
60	42	100,80	1,65					
80	31	74,40	2,20					
100	25	60,00	2,75					
120	21	50,40	3,30					
140	18	43,20	3,85					
160	16	38,40	4,40					

Board dimension: 1200 x 2000 mm
(also available 1000 x 1200 mm loose boards on pallets)

FIBRANgeo BP-60



MW-EN 13162-T7-CS(10)60-TR20-PL(5)600-WS-WL(P)-MU1-SD33-CP2-AW0,95-AFr50

Thickness [mm]	Boards /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
40	62	148,80	1,00	>20	**0,039** (40-110) **0,037** (>110mm)	>600	**>60**	A1
50	50	120,00	1,25					
60	42	100,80	1,50					
80	31	74,40	2,05					
100	25	60,00	2,55					
120	21	50,40	3,05					
140	18	43,20	3,55					
160	16	38,40	4,10					

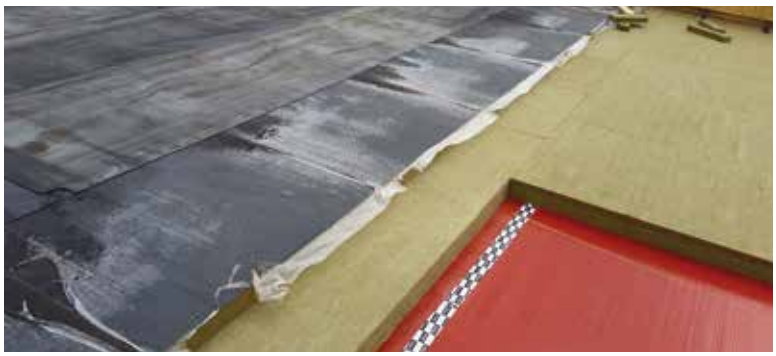
Board dimension: 1200 x 2000 mm
(also available 1000 x 1200 mm loose boards on pallets)

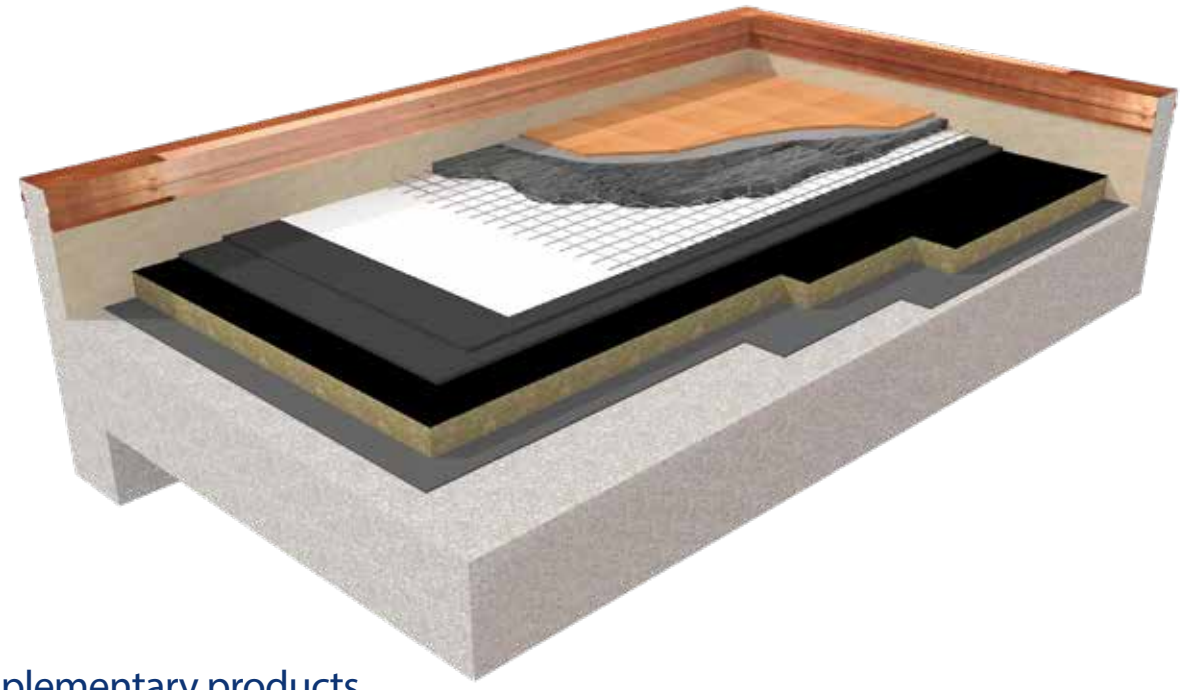
FIBRANgeo BP-80

MW-EN 13162-T7-CS(10)80-TR20-PL(5)800-WS-WL(P)-MU1-CP2

Thickness [mm]	Boards /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
40	62	148,80	1,00	>20	**0,039**	>800	**>80**	A1
50	50	120,00	1,25					
60	42	100,80	1,50					
80	31	74,40	2,05					
100	25	60,00	2,55					
120	21	50,40	3,05					
140	18	43,20	3,55					
160	16	38,40	4,10					

Board dimension: 1200 x 2000 mm
(also available 1000 x 1200 mm loose boards on pallets)





Complementary products

FIBRAN*filter*
Geotextile, for inverted roofs

FIBRAN*skin* **SEAL**
Water reducing layer,
(membrane over insulation)

FIBRAN*skin*
BARRIER 2400
Vapour barrier
(membrane below insulation)

FIBRAN*skin*
membranes

FIBRAN*skin* membranes provide vapour control and water protection

FIBRAN*xps* **300**

Thermal insulation boards made of extruded polystyrene, with high mechanical properties and minimum water absorption.

λ_D = 0,033 W/mK, thickness ≤60 mm
0,034 W/mK, thickness >60 mm

FIBRAN*xps* **500**

Thermal insulation boards made of extruded polystyrene, with very high mechanical properties and minimum water absorption.

λ_D = 0,033 W/mK, thickness ≤60 mm
0,034 W/mK, thickness >60 mm

FIBRAN*xps* **700**

Thermal insulation boards made of extruded polystyrene, with extremely high mechanical properties and minimum water absorption.

λ_D = 0,035 W/mK

FIBRAN*xps* **INCLINE**

Thermal insulation boards with factory-made inclination.

λ_D = 0,034 W/mK

- Smooth Surface
- L or I shaped edges

- Board dimension:
  1250 x 600 or **2500x600** [mm]

For more information on FIBRAN*xps* products and solutions, please refer to the XPS catalogue: 100 FIBRANxps extruded polystyrene products

FIBRANgeo PITCHED ROOF *solution*: Pitched roof with continuous insulation

FIBRANgeo BP-30

MW-EN 13162-T7-CS(10)30-TR10-PL(5)400-WS-WL(P)-MU1-SD33-CP2-AW0,95-AFr50

Thickness [mm]	Packages /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
30	20	115,20	0,80					
40	20	86,40	1,10					
50	16	69,12	1,35					
60	16	57,60	1,65					
70	18	51,84	1,90					
80	20	43,20	2,20	>10	**0,036**	>400	**>30**	A1
100	16	34,56	2,75					
120	20	28,80	3,30					
140	18	25,92	3,85					
160	14	20,16	4,40					
180	14	20,16	5,00					
200	24	17,28	5,55					

Board dimension: 600 x 1200 mm
(also available 1000 x 1200 mm loose boards on pallets)

FIBRANgeo BP-50

MW-EN 13162-T7-CS(10)50-TR15-PL(5)600-WS-WL(P)-MU1-SD33-CP2-AW0,95-AFr50

Thickness [mm]	Packages /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
30	20	115,20	0,80					
40	20	86,40	1,05					
50	20	72,00	1,35					
60	20	57,60	1,60					
70	18	51,84	1,85					
80	20	43,20	2,15	>15	**0,037**	>600	**>50**	A1
100	16	34,56	2,70					
120	20	28,80	3,20					
140	18	25,92	3,75					
160	14	20,16	4,30					
180	28	20,16	4,85					
200	24	17,28	5,40					

Board dimension: 600 x 1200 mm
(also available 1000 x 1200 mm loose boards on pallets)

FIBRANgeo PITCHED ROOF *solution:*

Pitched roof with insulation between timber rafters and joists

The insulation layer is placed between the rafters or joists, and it only partially supports the weight of the pitched roof. The single or double layer of stonewool is placed orthogonally between the timber frame. The solution also consists of FIBRAN*skin* membranes for waterproofing and vapour control. The total thickness and specific choice of stonewool panel type depends on the required thermal resistance, compression strength, potential dynamic loads and their distribution on the surface.

FIBRANgeo B-001

MW-EN 13162-T4-WS-WL(P)-MU1-AW1-AFr50

Thickness [mm]	Packages /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Sound Absorption Coefficient α_w	Reaction to Fire (EN 13501-1)
20	16	172,80	0,60				
30	16	115,20	0,90				
40	14	80,64	1,20				
50	16	69,12	1,50	5 (thickness 80 mm)	**0,033**	1	A1
60	16	57,60	1,80				
70	14	50,40	2,10				
80	14	40,32	2,40				
100	16	34,56	3,00				

Board dimension: 600 x 1200 mm

FIBRANgeo B-001 XA

MW-EN 13162-T4-CS(10)*-WS-WL(P)-SD5

Thickness [mm]	Packages /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Sound Absorption Coefficient α_w	Reaction to Fire (EN 13501-1)
20	16	172,80	0,60				
30	16	115,20	0,90				
40	14	80,64	1,20				
50	16	69,12	1,50	10 (thickness 50 mm)	**0,033**	1	A1
60	16	57,60	1,80				
70	14	50,40	2,10				
80	14	40,32	2,40				
100	16	34,56	3,00				

Board dimension: 600 x 1200 mm

FIBRANgeo B-001 AL

MW-EN 13162-T4-CS(10)*-WS-WL(P)-SD5

Thickness [mm]	Packages /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Sound Absorption Coefficient α_w	Reaction to Fire (EN 13501-1)
20	16	172,80	0,60				
30	16	115,20	0,90				
40	14	80,64	1,20				
50	16	69,12	1,50	10 (thickness 50 mm)	**0,033**	1	A1
60	16	57,60	1,80				
70	14	50,40	2,10				
80	14	40,32	2,40				
100	16	34,56	3,00				

Board dimension: 600 x 1200 mm

under timber rafters

The insulation layer is placed underneath the rafters and it supports the weight of the pitched roof. It must have the necessary high mechanical properties which FIBRAN*geo* **BP-30** or FIBRAN*geo* **BP-50** provide. The solution also consists of FIBRAN*skin* membranes for waterproofing and vapour control. This application is mainly used in residential buildings, new and renovation projects. The specific choice of stonewool panel type depends on the required thermal resistance, compression strength, potential dynamic loads and their distribution on the surface.

FIBRAN*geo* **BP-30**
FIBRAN*geo* **BP-50**

FIBRAN*geo* **PITCHED ROOF** ***solution:*** Pitched roof with insulation on attic ceiling lining

The insulation layer is placed internally in the attic and it doesn't support any load. It is positioned between the joists and most usually covered with a final layer of plasterboard (FIBRAN*gyps*). The solution also consists of FIBRAN*skin* membranes for waterproofing and vapour control or of a stonewool product with facing (kraft paper or aluminium craft paper foil reinforced with fiberglass mesh). The total thickness and specific choice of stonewool panel type depends on the required thermal resistance and available ceiling space, while lower mechanical strengths are required here.

FIBRAN*geo* **R-040***

- Thermal Conductivity λ_D: 0.035 W/mK
- Air Flow Resistivity: 15 kPa s/m²
- Sound absorption α_w=1 at 50 mm thickness
- A1 - Non - combustible

FIBRAN*geo* **R-050***

- Thermal Conductivity λ_D: 0.035 W/mK
- Air Flow Resistivity: 15 kPa s/m²
- Sound absorption α_w=1 at 50 mm
- A1 - Non - combustible

MW-EN 13162-T4-WS-WL(P)-MU1-AW1-AFr15

Thickness [mm]	Width [mm]	Length [mm]	Quantity per package [m²]	Thermal Resistance R (m²K/W)
30	1000	10000	10	0,85
40	1000	8000	8	1,10
50	1000	6000	6	1,40
60	1000	6000	6	1,70

MW-EN 13162-T4-WS-WL(P)-MU1-AW1-AFr15

Thickness [mm]	Width [mm]	Length [mm]	Quantity per package [m²]	Thermal Resistance R (m²K/W)
30	1000	10000	10	0,85
40	1000	8000	8	1,10
50	1000	6000	6	1,40
60	1000	6000	6	1,70

* upon demand

Complementary products

FIBRAN*skin* **VENT**
Waterproofing membrane

FIBRAN*skin* **SEAL**
Water reducing layer,
(membrane over insulation)

FIBRAN*skin*
BARRIER 2400
Vapour barrier
(membrane below insulation)

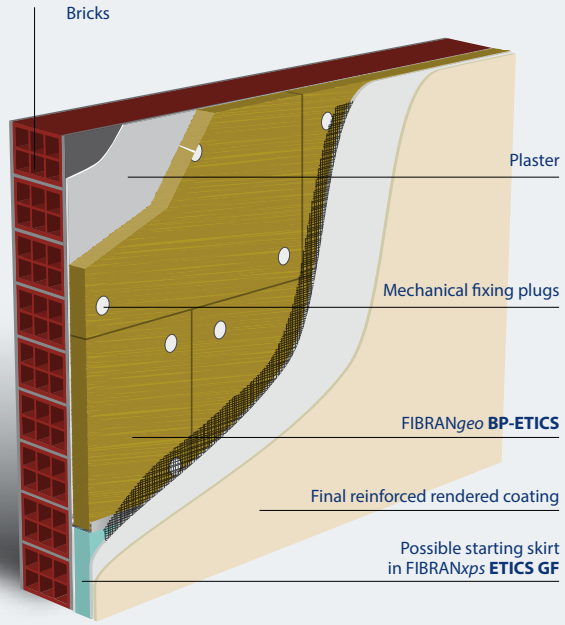
FIBRAN*skin*
membranes
FIBRAN*skin* membranes provide vapour control and water protection

Stonewool insulation boards for External Thermal Insulation System ETICS

FIBRANgeo **ETICS *solution***: External Thermal Insulation Composite Systems

The most efficient method of thermal insulation of the façade of the building is by installing the insulating material on the exterior side of the wall. In that way, the thermal bridges are minimized, thus providing maximum energy savings while at the same time the building is protected from wear and tear due to external conditions. This construction takes advantage of the thermal capacity of the building elements (columns, beams, walls), and improves the thermal behavior along the day cycle.

ETICS (External Thermal Insulation Composite System) is an excellent way to renovate and improve the appearance of an old building while at the same time upgrading its thermal performance.



FIBRANgeo **BP-ETICS**

ETA

Certified Product according to ETAG 004, for use in external thermal insulation composite systems (ETICS)
- Thermal Conductivity **λ_D: 0,035 W/mK**
- Tensile Strength perpedicular to faces, TR > 10 kPa
- Compressive stress > 30 kPa
- A1 - Non combustible

MW-EN 13162-T5-DS(70,90)-CS(10)30-TR10-PL(5)300-WS-WL(P)-MU1-AW0,95-AFr50

Thickness [mm]	Boards per package	Quantity per package [m²]	Packages per pallet	Quantity per pallet [m²]	Thermal Resistance R (m²K/W)
30	**8**	4,80	20	96,00	0,85
40	**7**	4,20	18	75,60	1,10
50	**6**	3,60	16	57,60	1,40
60	**5**	3,00	16	48,00	1,70
70	**4**	2,40	18	43,20	2,00
80	**5**	3,00	12	36,00	2,25
100	**3**	1,80	16	28,80	2,85
120	**4**	2,40	10	24,00	3,40
140	**2**	1,20	18	21,60	4,00
160	**3**	1,80	10	18,00	4,55
180	**2**	1,20	14	16,80	5,10
200	**2**	1,20	12	14,40	5,70
220	**1**	0,60	22	13,20	6,25
240	**1**	0,60	20	12,00	6,85
260	**1**	0,60	18	10,80	7,40
280	**1**	0,60	18	10,80	8,00
300	**1**	0,60	16	9,60	8,55

Board dimension: 600 x 1000 mm

FIBRANgeo **BP-ETICS PLUS**

ETA

Certified Product according to ETAG 004, for use in external thermal insulation composite systems (ETICS)
- Thermal Conductivity **λ_D: 0,034 W/mK**
- Tensile Strength perpedicular to faces, TR > 7,5 kPa
- Compressive stress ≥ 20 kPa
- A1 - Non combustible

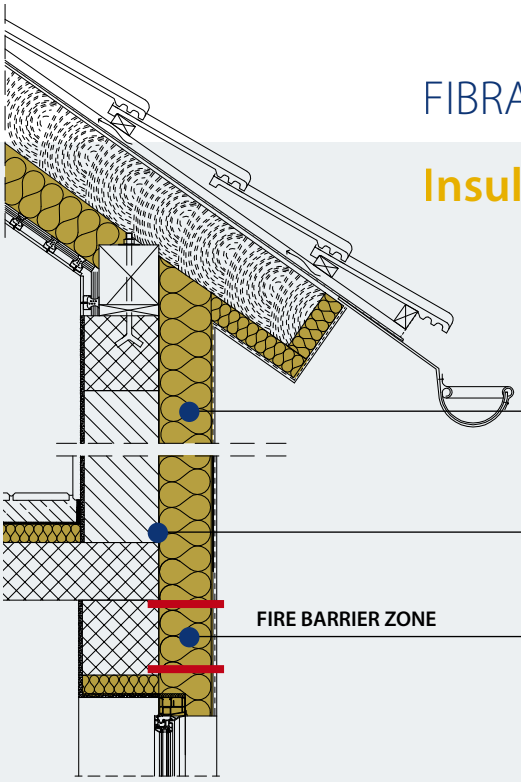
MW-EN 13162-T5-DS(70,90)-CS(10)20-TR7,5-PL(5)200-WS-WL(P)-MU1-AW0,95-AFr50

Thickness [mm]	Boards per package	Quantity per package [m²]	Packages per pallet	Quantity per pallet [m²]	Thermal Resistance R (m²K/W)
50	**6**	3,60	16	57,60	1,45
60	**5**	3,00	16	48,00	1,75
70	**4**	2,40	18	43,20	2,05
80	**5**	3,00	12	36,00	2,35
100	**3**	1,80	16	28,80	2,90
120	**4**	2,40	10	24,00	3,50
140	**2**	1,20	18	21,60	4,10
160	**3**	1,80	10	18,00	4,70
180	**2**	0,60	14	16,80	5,25
200	**2**	0,60	12	14,40	5,85

Board dimension: 600 x 1000 mm

FIBRAN*products* **ETICS *solution***

Insulation products that can work together



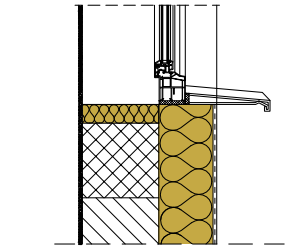
Stonewool
FIBRAN*geo* **BP-ETICS**
FIBRAN*geo* **BP-ETICS PLUS**

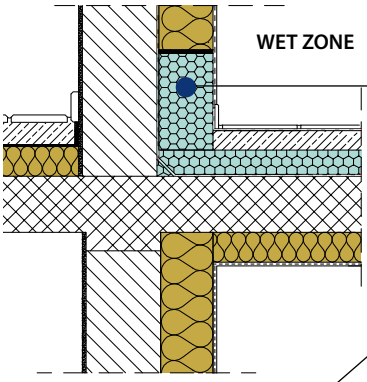
Reinforced gypsum board
FIBRAN*gyps* **NEXT**

Fire barrier
FIBRAN*geo* **BP-ETICS Fire Barrier**


FIBRAN*geo*

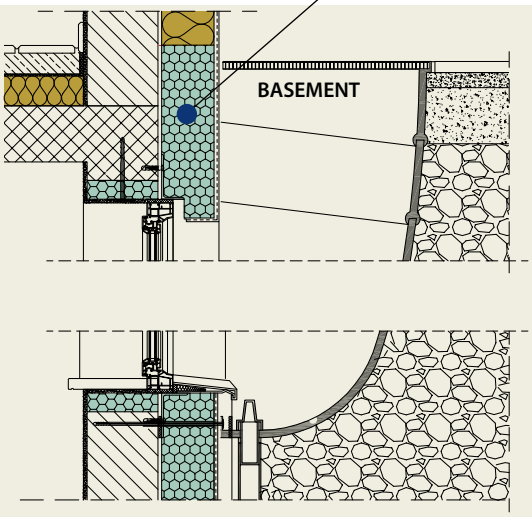

FIBRAN*gyps* **NEXT**





Extruded Polysterine
FIBRAN*xps* **GF ETICS**
FIBRAN*xps* **BT** (on concrete)
FIBRAN*xps* **300-L**


FIBRAN*xps*



External Thermal Insulation ETICS

Stonewool insulation boards for

ETICS system with FIBRAN*geo* **BP-ETICS**

FIBRAN*geo* **FREZA**

Metallic milling tool (70mm)

FIBRAN*geo* **CAPS**

Rock-wool (or poly-styrene) special items, 68mm diameter & 15mm thickness, for perfectly covering the holes of the fasteners.

FIBRAN*geo* **FASTENER**

Available at various lengths to accom-modate any ETICS thickness.

FIBRAN*skin* **VENT**

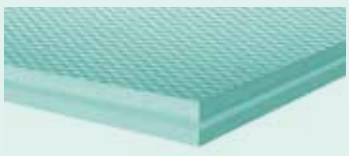
Breathable membrane, suitable for vertical surfaces such as ETICS and ventilated facades.

Complementary products

FIBRAN*xps* **ETICS GF**

Extruded polystyrene boards with relief (rough) surface for improved adhesion and improved vapour diffusion. Certified for ETIC Systems according to ETAG 004.

λ_D = 0,033 W/mK, thickness ≤60 mm
0,034 W/mK, thickness >60 mm



FIBRAN*xps* **300**

Thermal insulation boards made of extruded polystyrene, with high mechanical properties and minimum water absorption.

λ_D = 0,033 W/mK, για πάχη ≤60 mm
0,034 W/mK, για πάχη >60 mm

FIBRAN*xps* **CAP**

Extruded polystyrene special items, 68mm diameter & 15mm thickness, for perfectly covering the holes of the fasteners.

Diameter: 68 mm,
Thickness: 15 mm
Packing: 200 units / box

FIBRAN*eps* **TERMOPOR**
FIBRAN*eps* **GRAFIT**

Expanded polystyrene insulation boards (white and grey)

For more information on FIBRAN*xps* products and solutions, please refer to the XPS catalogue: 100 FIBRANxps extruded polystyrene products

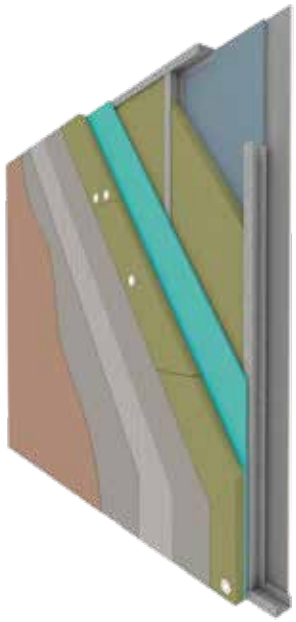
FIBRAN*geo* **ETICS** + FIBRAN*gyps* **NEXT *solution***: Facade Insulation

Product description
Gypsum board covered on both sides by reinforcement made of fiberglass, additivated with special components that make it particularly resistant to atmospheric agents, shocks, abrasion and bending.

CE marked GM-type H1R according to UNI EN 15283-1.
Conforms to ASTM C1177 for outdoor use.

FIBRAN*gyps* **NEXT BOARD**

Gypsum board	CE marked GM-type H1R
Dimensions	120 x 200 cm
Thickness	12,5 mm
Surface mass	10,00 kg/m^2
Edge	BA tapered edge
Thermal conductivity (10°C)	λ_d = 0,225 W/m K
Fire reaction	class A1
Specific heat	c_p = 1,0 theoretical value according EN 12524
Water absorption	≤ 3%
Flexural transversal breaking load	≥ 300 N
Flexural longitudinal breaking load	≥ 725 N
Dimensional variation cycles 4 days 23°C 50% RH / 3gg 30°C 90% RH	Transversal direction: 0,22 mm/m Longitudinal direction: 0,03 mm/m
Mold resistance	No growth



FIBRAN*gyps* **NEXT SYSTEM** components

FIBRAN*gyps* **NEXT MESH**

Reinforced mesh
Mesh produced with glass fiber wire with sizing anti-alkaline, high chemical inertia, certified ETAG 004.

FIBRAN*gyps* **TAPE**

Jointing tape
Adhesive tape with high chemical inertia, anti-alkaline sizing, used for the tapered edges finishing.

FIBRAN*gyps* **NEXT SCREWS**

For external screws
Self-drilling screws, length 25 and 39 mm, RUSPERT coating that guarantees 500h to salt spray test.

FIBRAN*gyps* **NEXT CORNER**

Corner with mesh
PVC corner with alkali-resistant mesh, white color.

FIBRAN*gyps* **NEXT BASE PROFILE**

Base profiles
for FIBRAN*gyps* **NEXT BOARD** 12,5 mm thickness.

Stonewool insulation boards for Ventilated Facade

FIBRAN*geo* **VENTILATED FACADE *solution*: Stone-wool insulation with facing

FIBRAN*geo* B-570-YM

Panel coated with black glass veil (60gr/m²)

MW-EN 13162-T4-WS-WL(P)-MU1-AW1-AFr30

Thickness [mm]	Packages / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Air flow resistivity r (kPa s/m²)	Thermal Conductivity λ (W/mK)	Sound absorption a_w	Reaction to Fire (EN 13501-1)
30	12	112,32	0,90	30	**0,033**	1 (thickness >= 50 mm)	A1
40	12	86,40	1,20				
50	12	69,12	1,50				
60	12	60,48	1,80				
70	12	51,84	2,10				
80	12	43,20	2,40				
100	12	34,56	3,00				
120	10	28,80	3,60				
140	12	25,92	4,20				
160	10	21,60	4,80				
180	14	20,16	5,45				
200	12	17,28	6,05				

Board dimension: 600 x 1200 mm

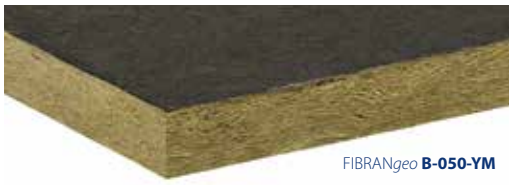
FIBRAN*geo* B-570-XA

Panel coated with Kraft paper

MW-EN 13162-T4-WS-WL(P)

Thickness [mm]	Packages / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Air flow resistivity r (kPa s/m²)	Thermal Conductivity λ (W/mK)	Sound absorption a_w	Reaction to Fire (EN 13501-1)
30	12	112,32	0,90		**0,033**	1 (thickness >= 50 mm)	F
40	12	86,40	1,20				
50	12	69,12	1,50				
60	12	60,48	1,80				
80	12	43,20	2,40				
100	12	34,56	3,00				

Board dimension: 600 x 1200 mm



FIBRAN*geo* **B-050-YM**

FIBRAN*geo* **B-050-YA**

FIBRAN*geo* B-050-YM

Panel coated with black glass veil (60gr/m²)

MW-EN 13162-T4-WS-WL(P)-MU1-AW1-AFr15

Thickness [mm]	Packages / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Air flow resistivity r (kPa s/m²)	Thermal Conductivity λ (W/mK)	Sound absorption a_w	Reaction to Fire (EN 13501-1)
30	10	115,20	0,85	15	**0,034**	1 (thickness >= 50 mm)	A1
40	10	86,40	1,15				
50	10	72,00	1,45				
60	10	57,60	1,75				
70	10	50,40	2,05				
80	10	43,20	2,35				
100	10	36,00	2,90				
120	10	28,80	3,50				
140	12	25,92	4,10				
160	10	21,60	4,70				
180	8	17,28	5,25				
200	12	17,28	5,85				

Board dimension: 600 x 1200 mm

FIBRAN*geo* B-050-XA

Panel coated with Kraft paper

MW-EN 13162-T4-WS-WL(P)

Thickness [mm]	Packages / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Air flow resistivity r (kPa s/m²)	Thermal Conductivity λ (W/mK)	Sound absorption a_w	Reaction to Fire (EN 13501-1)
30	10	115,20	0,85		**0,034**	1 (thickness >= 50 mm)	F
40	10	86,40	1,15				
50	10	72,00	1,45				
60	10	57,60	1,75				
80	10	43,20	2,35				
100	10	36,00	2,90				

Board dimension: 600 x 1200 mm

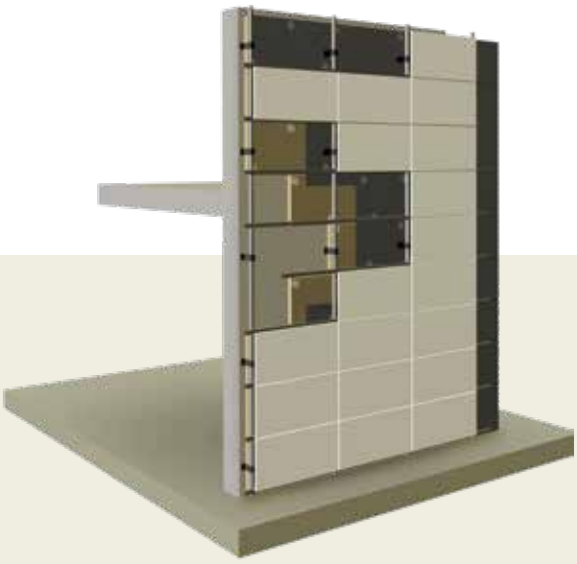
for ventilated facades

The ventilated façade is a high-performance solution for external building walls. It is defined by the presence of an air gap between the main body of the building and the external "skin", which is usually some cladding (eg. Ceramic tiles, stone, marble, metallic panels) that is mechanically anchored to the main structure.

Stonewool is the ideal insulating material for this application, since it combines the high thermal insulation with fire protection, acoustic insulation and ideal vapour permeability. The use of a black glass fiber coating on stonewool protects it against the possibility of wear and tear (de-fibration) and rain infiltration.

FIBRAN*geo* **B-050** and **B-570** stonewool panels, both with **YM** (black, now-woven fiberglass fleece) and **XA** (Kraft paper) facings, are specially designed for this application. Furthermore, they are A1-class fire certified, meaning they are incombustible and thus providing the necessary fire protection to high buildings, as required by legislation in most European countries.

Ventilated facade with FIBRAN*geo*
B-570-YM



Complementary products

FIBRAN*skin* **VENT & VENT SILVER**
Waterproofing membrane

FIBRAN*skin* **SEAL**
Water reducing layer,
(membrane over insulation)

FIBRAN*skin* **BARRIER 2400**
Vapour barrier
(membrane below insulation)

FIBRAN*skin*

membranes

FIBRAN*skin* membranes provide vapour control and water protection

FIBRANgeo **DRY CONSTRUCTION *solution*: Internal walls**

FIBRANgeo B-030

MW-EN 13162-T4-WS-WL(P)-MU1-AW1-AFr10

Thickness [mm]	Packages / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Air flow resistivity r (kPa s/m²)	Thermal Conductivity λ (W/mK)	Sound absorption a_w	Reaction to Fire (EN 13501-1)
50	10	72,00	1,40	10	**0,035**	1 (thickness >= 50 mm)	A1
60	10	57,60	1,70				
80	10	43,20	2,25				
100	10	36,00	2,85				

Board dimension: 600 x 1200 mm

FIBRANgeo B-040

MW-EN 13162-T4-WS-WL(P)-MU1-AW1-AFr15

Thickness [mm]	Packages / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Air flow resistivity r (kPa s/m²)	Thermal Conductivity λ (W/mK)	Sound absorption a_w	Reaction to Fire (EN 13501-1)
40	10	86,40	1,15	15	**0,034**	1 (thickness >= 50 mm)	A1
50	10	72,00	1,45				
60	10	57,60	1,75				
80	10	43,20	2,35				
100	10	36,00	2,90				

Board dimension: 600 x 1200 mm

FIBRANgeo B-050

MW-EN 13162-T4-WS-WL(P)-MU1-AW1-AFr15

Thickness [mm]	Packages / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Air flow resistivity r (kPa s/m²)	Thermal Conductivity λ (W/mK)	Sound absorption a_w	Reaction to Fire (EN 13501-1)
30	10	115,20	0,85	15	**0,034**	1 (thickness >= 50 mm)	A1
40	10	86,40	1,15				
50	10	72,00	1,45				
60	10	57,60	1,75				
80	10	43,20	2,35				
100	10	36,00	2,90				

Board dimension: 600 x 1200 mm

Dry construction (building construction without the use of plaster or mortar), speeds the construction process and is the most common method for building internal separation walls. It is very common in hotels, commercial and public buildings as it offers ease and speed of construction while allowing for easier future alterations. The key technical characteristics that a proper dry wall must offer, apart from its mechanical strength, is acoustic & thermal insulation as well as fire protection.

FIBRANgeo **B**-series products are ideal for this application, as they provide high acoustic and thermal insulation, fire protection (A1 class fire certified, meaning they are incombustible) and sufficient mechanical strength so that they retain their form and shape for the lifetime of the construction.

FIBRANgeo B-060

MW-EN 13162-T4-WS-WL(P)-MU1-AW1-AFr30

Thickness [mm]	Packages / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Air flow resistivity r (kPa s/m²)	Thermal Conductivity λ (W/mK)	Sound absorption a_w	Reaction to Fire (EN 13501-1)
30	10	115,20	0,85	30	**0,034**	1 (thickness >= 50 mm)	A1
40	10	86,40	1,15				
50	10	72,00	1,45				
60	10	57,60	1,75				
80	10	43,20	2,35				
100	10	36,00	2,90				

Board dimension: 600 x 1200 mm

FIBRANgeo B-570

MW-EN 13162-T4-WS-WL(P)-MU1-AW1-AFr30

Thickness [mm]	Packages / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Air flow resistivity r (kPa s/m²)	Thermal Conductivity λ (W/mK)	Sound absorption a_w	Reaction to Fire (EN 13501-1)
30	12	112,32	0,90	30	**0,033**	1 (thickness >= 50 mm)	A1
40	12	86,40	1,20				
50	12	69,12	1,50				
60	12	60,48	1,80				
80	12	43,20	2,40				
100	12	34,56	3,00				

Board dimension: 600 x 1200 mm

FIBRANgeo B-001

MW-EN 13162-T4-WS-WL(P)-MU1-AW1-AFr50

Thickness [mm]	Packages / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Air flow resistivity r (kPa s/m²)	Thermal Conductivity λ (W/mK)	Sound absorption a_w	Reaction to Fire (EN 13501-1)
20	16	172,80	0,60	60	**0,033**	1 (thickness >= 50 mm)	A1
30	16	115,20	0,90				
40	14	80,64	1,20				
50	16	69,12	1,50				
60	16	57,60	1,80				
80	14	40,32	2,40				
100	16	34,56	3,00				

Board dimension: 600 x 1200 mm

Drywall system installation with stonewall inside and FIBRANgyps plasterboards.

ETA 13/0631
FIBRAN stud partitions and lining systems obtained ETA 13/0631 by Instituto de Ciencias de la Costrucciòn Eduardo Torroja de Madrid.

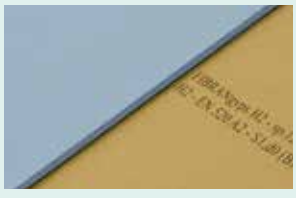
AENOR
Producto Certificado

Complementary products

FIBRAN **SUPER**

Gypsum based board for special application, with higher strength, higher surface hardness, controlled density, reduced water absorption (H1), and with additional glass fibres to improve core adhesion at high temperatures.

Type DFH1IR, CE marked according to UNI EN 520, one decorative light blue face.



FIBRAN*gyps* **CARE®**

Special gypsum plasterboard produced with the innovative FIBRAN CARE Technology: neutralisation of air pollutants (VOC) and odors without releasing them back into the environment. Standard type A, CE marked according to UNI EN 520, one decorative ivory face. No emission of pollutants in the indoor environment - classification A+ in accordance with EN ISO 16000-09.

FIBRAN*gyps* **H2 13**

Gypsum based board with additives to reduce the water absorption rate.
Type H2, CE marked according to UNI EN 520, one decorative green.

FIBRAN*gyps* **F 13**

Gypsum based board with additives such as vermiculite and glass fibers to improve core adhesion at high temperature for fire resistance.
Type F, CE marked according to UNI EN 520, one decorative pink face.

FIBRAN **NEXT COAT**

Finishing powder to be mixed with water, based on selected inert, hydraulic binder and special additives which give the product remarkable adhesion and elasticity.

FIBRAN*gyps* **GLUE**

Gypsum-based high density adhesive, in powder to be mixed with water for manual application. CE marked according to EN 14496.

FIBRAN*gyps* **JF60**

Joint filler in powder to be mixed with water for manual application, medium setting time. To be used between 5° and 35°C. 3B CE marked according to UNI EN 13963.

FIBRAN*gyps* **JF READYMIX**

Ready-mixed joint compound for quick and easy application, lightened by 25% compared with traditional joint filler , very elastic and soft.

FIBRANgeo **FLOORS** *solution*: insulation under floors for improved acoustic

FIBRANgeo BP-30

MW-EN 13162-T7-CS(10)30-TR10-PL(5)400-WS-WL(P)-MU1-SD33-CP2-AW0,95-AFr50

Thickness [mm]	Packages /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
30	20	115,20	0,80					
40	20	86,40	1,10					
50	16	69,12	1,35					
60	16	57,60	1,65					
70	18	51,84	1,90					
80	20	43,20	2,20	10	**0,036**	400	**30**	A1
100	16	34,56	2,75					
120	20	28,80	3,30					
140	18	25,92	3,85					
160	14	20,16	4,40					
180	14	20,16	5,00					
200	24	17,28	5,55					

Board dimension: 600 x 1200 mm
(also available 1000 x 1200 mm loose boards on pallets)

FIBRANgeo BP-40

MW-EN 13162-T7-CS(10)40-TR15-PL(5)500-WS-WL(P)-MU1-SD33-CP2-AW0,95-AFr50

Thickness [mm]	Packages /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
30	20	115,20	0,80					
40	20	86,40	1,10					
50	16	69,12	1,35					
60	16	57,60	1,65					
80	20	43,20	2,20	15	**0,036**	500	**40**	A1
100	16	34,56	2,75					
120	20	28,80	3,30					
140	18	25,92	3,85					
160	16	23,04	4,40					
180	14	20,16	5,00					
200	24	17,28	5,55					

Board dimension: 600 x 1200 mm
(also available 1000 x 1200 mm loose boards on pallets)

FIBRANgeo BP-50

MW-EN 13162-T7-CS(10)50-TR15-PL(5)600-WS-WL(P)-MU1-SD33-CP2-AW0,95-AFr50

Thickness [mm]	Packages /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
30	20	115,20	0,80					
40	20	86,40	1,05					
50	20	72,00	1,35					
60	20	57,60	1,60					
80	20	43,20	2,15	15	**0,037**	600	**50**	A1
100	16	34,56	2,70					
120	20	28,80	3,20					
140	18	25,92	3,75					
160	14	20,16	4,30					
180	28	20,16	4,85					
200	24	17,28	5,40					

Board dimension: 600 x 1200 mm
(also available 1000 x 1200 mm loose boards on pallets)

FIBRANgeo BP-70

MW-EN 13162-T7-CS(10)70-TR20-PL(5)700-WS-WL(P)-MU1-SD33-CP2-AW0,95-AFr50

Thickness [mm]	Packages /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Tensile Strength (kPa)	Thermal Conductivity λ (W/mK)	Point Load (PL5) (N)	Compressive Strength (CS10) (kPa)	Reaction to Fire (EN 13501-1)
40	20	86,40	1,00					
50	20	72,00	1,25					
60	20	57,60	1,50					
80	20	43,20	2,05					
100	24	34,56	2,55					
120	20	28,80	3,05	20	**0,039**	700	**70**	A1
140	36	25,92	3,55					
160	28	20,16	4,10					
180	14	20,16	4,60					
200	24	17,28	5,10					
220	22	15,84	5,60					

Board dimension: 600 x 1200 mm
(also available 1000 x 1200 mm loose boards on pallets)

FIBRANgeo B-001

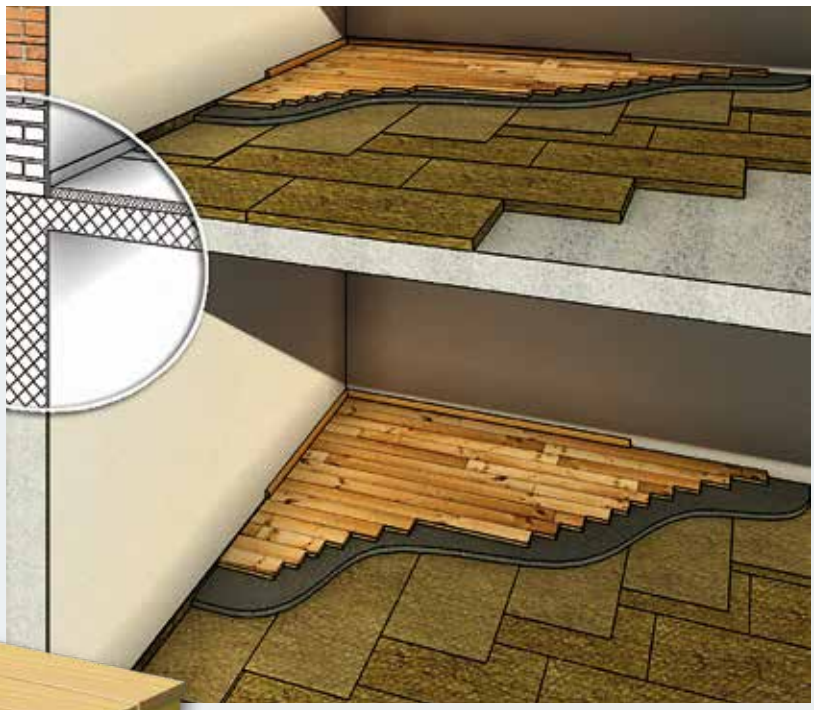
MW-EN 13162-T4-WS-WL(P)-MU1-AW1-AFr50

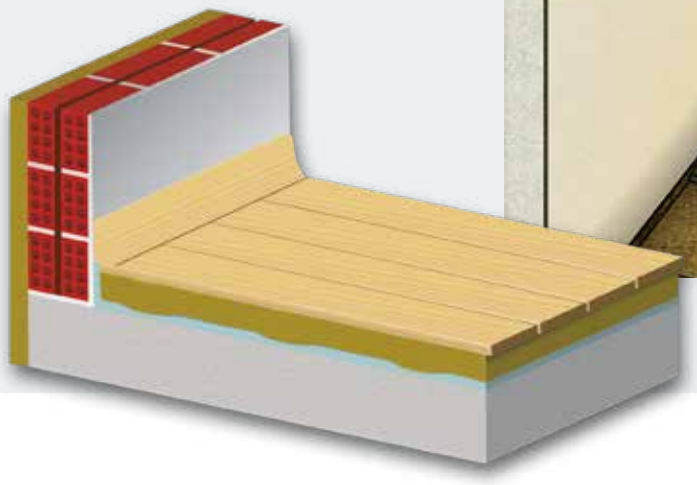
Thickness [mm]	Packages /pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Thermal Conductivity λ (W/mK)	Sound absorption a_w	Reaction to Fire (EN 13501-1)
20	16	172,80	0,60			
30	16	115,20	0,90			
40	14	80,64	1,20			
50	16	69,12	1,50	**0,033**	1 (thickness >= 50 mm)	A1
60	16	57,60	1,80			
80	14	40,32	2,40			
100	16	34,56	3,00			

Board dimension: 600 x 1200 mm

behaviour

The use of FIBRAN*geo* **B** or **BP** series products at floating floor applications, provide excellent sound insulation against shock and air-transmitted sound. The high mechanical properties of the stonewool boards ensure the technical endurance of the construction.





Sound insulation of floating floor with FIBRANgeo **B-571**

Complementary products

FIBRAN*xpe*

Expanded polyetylene foil for absorption of vibrations and sound insulation. It has high dimensional stability, mass uniformity, is flexible, not oxidized and not affected by bacteria and fungi.

FIBRAN*skin* **SEAL**

Water reducing layer, (membrane over insulation)

FIBRAN*geo* **B-051**

MW-EN 13162-T*-WS-WL(P)-MU1-SD18-CP3**-AW0,95-AFr50

Thickness [mm]	Packages / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Thermal Conductivity λ (W/mK)	T	CP3	Reaction to Fire (EN 13501-1)
20	20	172,80	0,55	**0,035**	*T6 (20-30mm) T4 (40-200mm)	**CP3 (20-30mm)	A1
30	20	115,20	0,85				
40	20	86,40	1,10				
50	20	72,00	1,40				
60	20	57,60	1,70				
80	20	43,20	2,25				
100	16	34,56	2,85				
120	20	28,80	3,40				
140	18	25,92	4,00				
160	14	20,16	4,55				
180	28	20,16	5,10				
200	24	17,28	5,70				

Board dimension: 600 x 1200 mm

FIBRAN*geo* **B-571**

MW-EN 13162-T6-WS-WL(P)-MU1-CP3-AW0,95-AFr50

Thickness [mm]	Packages / pallet	Quantity /pallet [m²]	Thermal Resistance R (m²K/W)	Thermal Conductivity λ (W/mK)	Reaction to Fire (EN 13501-1)
20	20	172,80	0,55	**0,035**	A1
30	20	115,20	0,85		
40	20	86,40	1,10		
50	20	72,00	1,40		
60	20	57,60	1,70		
80	20	43,20	2,25		
100	24	34,56	2,85		
120	20	28,80	3,40		

Board dimension: 600 x 1200 mm

HANDLING AND STORAGE

FIBRAN*geo* products should be stored indoors. If stored outdoors, they must be protected from impregnation. Pallets shrink-wrapped weather tightly in PE film may be stored outside. Separate packages should be placed on a flat pallet, not in direct contact with the ground.

If part of the product gets wet, it must be dried before installation. Stonewool dries quickly and its insulating properties remain unchanged after drying.

FIBRAN*geo* products are chemically inert and do not allow the growth of micro-organisms, insects or rodents.

Handling, loading and unloading of the products should be carried out with care, to avoid damage both of the packaging and the boards' edges.

APPLICATION AND PERSONAL PROTECTION

For the selection and application of FIBRAN*geo* products all design requirements should be taken into consideration.

FIBRAN*geo* products should be protected from impregnation, prior to and during application. The packaging film should be removed with care just before installation.

Working areas should be kept clean. Unnecessary or extensive contact of the skin and eyes with product off-cuts, fibres and dust should be avoided, and protective wear should be used (gloves, goggles, hats).

Sufficient ventilation of the working areas should be ensured, whilst power cutting tools should always be provided with a mechanical system of dust intake.

Stonewool products are not considered hazardous waste. Waste disposal should be carried out according to State and Local regulations.

fibran® ENERGYSHIELD.

What does **FIBRAN** stand for?

FIBRAN stands for **quality**. We manufacture products for thermal & sound insulation, as well as fire protection, taking great care to ensure that our materials meet the technical requirements and declared values.

FIBRAN stands for **honesty**. We respect the architect, the engineer, the constructor, the applicator and the owner of the project by providing truthful declarations after thorough testing and examination of the products. Designers and energy auditors can count on our technical data, constructors can trust our materials.

FIBRAN stands for **ethos**. We value morality and fair trade practices by going into great lengths to honor agreements, pay our people, partners and suppliers on time, follow and respond to claims, meet all our obligations. We stand next to the user of our product after the sale.

FIBRAN stands for **family**. Even after growing to an international organization with production plants at six countries, the company retains a strong family core and values that spread through its people.

FIBRAN stands for **future**. We design solutions for the building of tomorrow. We research technologies for the years to come. We prepare answers to the challenges of the next decade and participate in multiple International Associations. And we support our people and partners for all to grow together.

fibranXPS fibranGEO fibranGYPS fibranEPS

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