

FIBRANgeo B-050

Stonewool insulation board

Technical Data Sheet / April 2022



Description

FIBRANgeo B-050 stonewool board is a natural inorganic fibrous product that is industrially produced from molten rock spun into fibres, in accordance with European Standard EN 13162 (Thermal insulation products for buildings - Factory made mineral wool (MW) products).

FIBRANgeo B-050 boards can be produced with the following facings on one surface:

- **AL** (Aluminum foil reinforced with fibreglass net)
- **AX** (Aluminum kraft paper foil reinforced with fibreglass net)
- **YM** (Black non-woven fibreglass fleece)
- **YA** (White non-woven fibreglass fleece)
- **XA** (Kraft paper)

Applications



Boards designed for thermal insulation, fire resistance and sound insulation applications:

Insulation of **cavity of vertical elements**, such as:

- Core insulation for walls (dry-construction with any type of boards, timber construction, metal or gypsum panels e.t.c.)
- Masonry cavity walls

Insulation of **cavity of horizontal elements**, such as:

- Dry-construction ceiling, non-perforated suspended ceiling
- Attic ceiling lining
- Between floor timber joists
- Pilotis external insulation with dry construction cladding



Advantages

- Excellent thermal insulation
- Non-combustible material with excellent fire resistance
- Excellent sound absorption and sound reduction
- Open fibre structure material with very low water vapour diffusion resistance that enhances the building element's breathability
- Excellent dimensional stability and durability
- Water repellent and non-hygroscopic
- Easy to handle, cut and install
- Natural, inorganic, odourless, chemically inert (practically neutral PH)
- Recyclable, friendly to the environment and to the end user

Designation Code:

MW (Mineral Wool) - EN 13162 - T4 - WS - WL(P) - MU1 - AW1 - AFR15

Technical Characteristics	Symbol EN 13162	Unit	Value	EN Standard
Declared thermal conductivity at 10°C	λ_D	W/(mK)	0,034	EN 13162 EN 12667 EN 12939
Nominal thickness	d_N	mm	30 – 300	EN 823
Fire classification	-	Class	A1 (Non-combustible)	EN 13501-1
Melting temperature	-	°C	>1000	DIN 4102-17
Specific heat capacity	c	kJ/kgK	1,03	ISO 10456
Thickness tolerance	T	Class	T4 (<100mm: -3mm, +5%) (≥100mm: -3%, +5mm)	EN 13162
Short term water absorption for 24 hours	WS	kg/m ²	<1	EN 1609
Long term water absorption for 28 days	WL(P)	kg/m ²	<3	EN 12087
Water vapor diffusion resistance factor, μ	MU	-	1	EN 12086
Air flow resistivity, r	AFr	kPa s/m ²	≥ 15	EN 29053
Weighted sound absorption coefficient on boards with thickness 50mm, α_w	AW NRC	-	1,00 Class A 0,95	EN ISO 11654 EN ISO 354

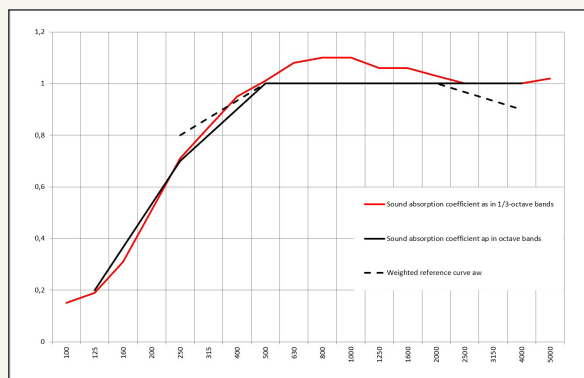
Technical characteristics and DoP refer to the product without facings.

Thermal resistance R

Nominal thickness	d_N	mm	30	40	50	60	70	80	100	120	140	160	180	200	EN 823
Declared thermal resistance	R_D	m ² K/W	0,85	1,15	1,45	1,75	2,05	2,35	2,90	3,50	4,10	4,70	5,25	5,85	EN 13162

Acoustic properties

Sound absorption coefficient α (EN ISO 354) on boards with thickness 50mm



Frequency (Hz)	α_s	α_p	α_w
125	0,19	0,20	-
250	0,71	0,70	0,80
500	1,01	1,00	1,00
1000	1,10	1,00	1,00
2000	1,03	1,00	1,00
4000	1,00	1,00	0,90

Weighted sound absorption coefficient

$\alpha_w = 1,00$ - Class A (EN ISO 11654)

Noise reduction coefficient

NRC = 0,95 (ASTM 423)

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Certification

FIBRANgeo B-050 stonewool insulation products have been certified according to European Norms EN 13162 και EN 13172 and hold the CE marking that derives from the Declaration of Performance **DoP**.

All **FIBRANgeo** stonewool insulation products meet the quality and safety requirements of the European Standards and comply with the European Regulations 305/2011 (CPR).

Furthermore, all **FIBRANgeo** stonewool products, carry the certification mark EUCEB (European Certification Board for Mineral Wool Products), whose procedures ensure compliance of mineral wool insulation products with the "Note Q" of Directive 97/69/EC, regarding their fibres biosolubility and their non-classification as dangerous materials.

Moreover, according to EC Regulation 790/2009 they are not classified as products that cause skin irritation (R38).

FIBRAN S.A. implements a system of quality management according to ISO 9001:2015 and environmental management according to ISO 14001:2015.

VOCs emissions

The concentrations of volatile organic compounds and other parameters specified in the AgBB-scheme of the German Committee for the evaluation of construction products related to health, are below the permissible emission levels.

Application

FIBRANgeo products must be protected from getting wet before and on their application. If part of the product gets wet, it must be dried before installation. Stonewool dries quickly and its insulating properties remain unchanged after drying. Packaging should be removed carefully just before the installation.

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

Products with facing AL, AX, YM ή YA are not suggested for application with service temperature on the surface more than 90°C while those with surface XA are not suggested for more than 66°C.

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

Stonewool products are not dangerous materials for disposal. They are covered by code 17.06.04 of the waste list, of Decision 2000/532 / EC and are disposed of in accordance with applicable environmental regulations.

More informations on the [Safety Data Sheet](#) of product.



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Storage

FIBRAN^{geo} products should be stored indoors. If stored outdoors, they must be protected from impregnation. Handling, loading and unloading of the products should be carried out with care to avoid damage to both the packaging and the board's edges.

Packaging

Thickness [mm]	Width [mm]	Length [mm]	Boards per package [pc.]	Quantity per package [m ²]	Packages per pallet [pc.]	Quantity per pallet [m ²]
30	600	1200	16	11,52	10	115,20
40	600	1200	12	8,64	10	86,40
50	600	1200	10	7,20	10	72,00
60	600	1200	8	5,76	10	57,60
70	600	1200	7	5,04	10	50,40
80	600	1200	6	4,32	10	43,20
100	600	1200	5	3,60	10	36,00
120	600	1200	4	2,88	10	28,80
140	600	1200	3	2,16	12	25,92
160	600	1200	3	2,16	10	21,60
180	600	1200	3	2,16	8	17,28
200	600	1200	2	1,44	12	17,28



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