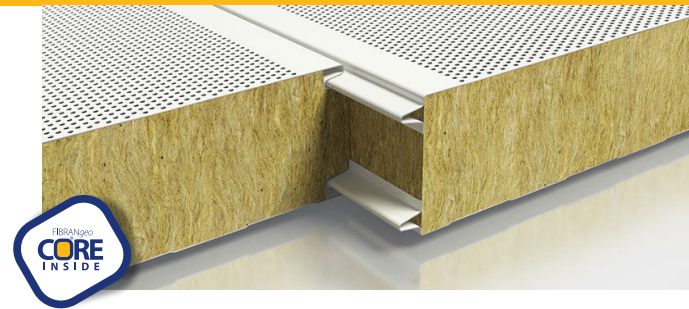


FIBRANgeo CORE BP-THERMAL

A Multipurpose Slab for the sandwich panels core

Technical Data Sheet / June 2022



Description

FIBRANgeo CORE BP-THERMAL is produced from molten mineral rock, initially fused in an electric furnace at more than 1500°C and then spun into fibres. The loose stonewool fibres, with the addition of adhesive resin, oil and special compounds that provide water repellency, become cohesive, elastic, non-hygroscopic and water-repellent. Fibres are formed in boards and cut to size as required by application. Products are finally shrink-wrapped in PE film and packed on pallets.

Stonewool is a natural inorganic fibrous material, widely recognized for its thermal and sound insulating properties, as well as its excellent performance in terms of fire protection. Products are certified according to the European Standard EN 13162 (MW - Mineral Wool insulation products).

Delivery Programme

FIBRANgeo CORE BP-THERMAL slab dimensions are regularly produced upon the specification of the customer. However the format and the dimension tolerances can be respected only within the technical capability of the **FIBRANgeo** production line, that are specified below:

- **Thickness range:** 30 – 300 mm
- **Length:** 1000 – 2400 mm
- **Width:** 500 – 1250 mm

Packaging and palletizing upon customer specifications.

Application

FIBRANgeo CORE BP-THERMAL is a semi-rigid board dedicated for the core of sandwich panels. Due to the special production process stone wool fibres are extensively corrugated, which provides the board a high level of mechanical resistance. This boards are ready to bond for installation in the core of sandwich panels, where the top layers of the compisite are glued to the core of mineral wool with a polyurethane or a cement based adhesive.

FIBRANgeo CORE BP-THERMAL slabs can be used for the production of sandwich panels on continuous or discontinuous production lines and for composite panels with **FIBRANgypps** or other high quality plasterboards. It is recommended for use in production of sandwich panels with high thermal efficiency requirements. Due to this, **FIBRANgeo CORE BP-THERMAL** can upon request be produced with a specially designed L-cut edge, that minimizes thermal losses at joints of slabs inside the sandwich panel core.



Advantages

- Excellent thermal insulation
- Non-combustible material with excellent fire resistance
- Excellent sound absorption and sound reduction
- Optimized for high Mechanical and Thermal stress
- 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

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Technical characteristics

Designation Code:

MW (Mineral Wool) - EN 13162 – T5 – CS(10)20 – TR7,5 – WS – WL(P) – MU1

Technical Characteristics	Symbol EN 13162	Unit	Value	EN Standard
Declared thermal conductivity at 10°C	λ_D	W/(mK)	0,035	EN 13162 EN 12667 EN 12939
Nominal thickness	d_N	mm	30 – 300	EN 823
Fire classification	-	Class	A1 (Non-combustible)	EN 13501-1
Calorific value	-	MJ/kg	≤ 2	EN 13501
Thickness tolerance	T	Class	T5 ($<100\text{mm}$: -1 mm , +3 mm) ($\geq 100\text{mm}$: -1% , +3 mm)	EN 12431
Compressive Stress at 10% thickness deformation*	CS(10)	kPa	≥ 20	EN 826
Tensile strength perpendicular to faces	TR	kPa	$\geq 7,5$	EN 1607
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

Modulus values available upon request

Thermal resistance R

Nominal thickness	d_N	mm	30	40	50	60	80	100	120	140	160	180	200	250	300	EN 823
Declared thermal resistance	R_D	m ² K/W	0,85	1,10	1,40	1,70	2,25	2,85	3,40	4,00	4,55	5,15	5,70	7,15	8,60	EN 13162



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