

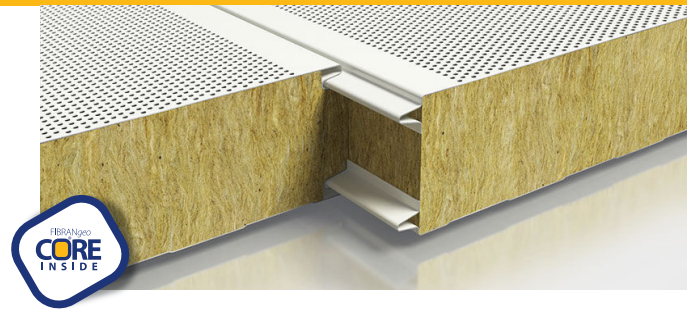
FIBRAN_{geo} CORE BP-40

A Multipurpose Slab for the sandwich panels core

Technical Data Sheet / June 2022



0751



Description

FIBRAN_{geo} CORE BP-40 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

FIBRAN_{geo} CORE BP-40 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 **FIBRAN_{geo}** production line, that are specified below:

- **Thickness range:** 30-280 mm
- **Length:** 1000 – 2400 mm
- **Width:** 500 – 1250 mm

Packaging and palletizing upon customer specifications.

Application

FIBRAN_{geo} CORE BP-40 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 composite are glued to the core of mineral wool with a polyurethane or a cement based adhesive.

FIBRAN_{geo} CORE BP-40 slabs can be used for the production of sandwich panels on continuous or discontinuous production lines and for composite panels with **FIBRAN_{gyp}s** or other high quality plasterboards. It is recommended for use in production of sandwich panels with high thermal efficiency requirements. Due to this, **FIBRAN_{geo} CORE BP-40** 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)40 – TR15 – WS – WL(P) – MU1

| Technical Characteristics | Symbol EN 13162 | Unit | Value | EN Standard |
|---|--------------------|-------------------|--|----------------------------------|
| Declared thermal conductivity at 10°C | λ_D | W/(mK) | 0,036 | EN 13162 EN 12667 EN 12939 |
| Nominal thickness | d_N | mm | 30-280 | 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 | ≥ 40 | EN 826 |
| Tensile strength perpendicular to faces | TR | kPa | ≥ 15 | 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 | 280 | 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 | 6,90 | 7,75 | EN 13162 |



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