

# FIBRAN<sup>geo</sup> R-001-KO

Stonewool wired mat with galvanised mesh and stitching wire



## Product Description

**FIBRAN<sup>geo</sup> R-001-KO Stonewool wired mat with galvanised mesh and stitching wire** is industrially produced from molten rock spun into fibres.

It is classified as thermal insulation mineral wool product for use in building equipment and industrial installations, according to the European Standard EN 14303 (MW - Mineral Wool insulation products). Stonewool 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<sup>geo</sup> R-001-KO** is produced from mineral rock, initially fused in an electric furnace at 1520°C and then spun into fibres. The loose stonewool fibres, with the addition of adhesive resin, oil and special silicon compounds that provide hydrophobicity, become cohesive, elastic, non-hygroscopic and water-repellent. The product is then stitched on galvanized wired mesh with galvanized wire, formed into rolls and finally shrink-wrapped in PE film in packages.

The non-use of fossil fuels (e.g. coke) as a main production fuel minimises polluting gas emissions in the environment.

## Advantages

- Excellent thermal insulation
- Excellent sound absorption and sound reduction
- Non-combustible material with excellent fire resistance
- Insulating properties remain unchanged in high temperatures
- Open hive structure material with very low water vapour diffusion resistance, similar to the resistance of air
- Water repellent and non-hygroscopic
- Natural, inorganic, odourless, chemically inert, suitable for use over stainless steel
- Lightweight, easy to handle, cut and install
- Resistant to vibrations
- Does not allow the development of micro-organisms, insects or rodents
- Recyclable
- Friendly to the environment and to the end user

## Applications

**FIBRANGeo R-001-KO** is suitable for use in building equipment and industrial installations.

Thermal-acoustic-fire insulation of :

- Pipe work
- Smoke exhaust ducts and chimneys
- Machines
- Silencer equipment
- Boiler, vessels and tank walls
- Heat exchangers
- Furnaces
- Max. Service Temperature 650 °C

## Packaging

Thickness [mm]	Width [mm]	Length [mm]	Quantity/ Roll [m <sup>2</sup> / Roll]
30	1000	6.000	6,00
40	1000	5.000	5,00
50	1000	5.000	5,00
60	1000	3.000	3,00
80	1000	3.000	3,00
100	1000	2.500	2,50
120	1000	2.500	2,50

Other dimensions are available upon request.



## Facings

**FIBRANGeo R-001-KO** is available with the following variants to meet particular application requirements:

- **FIBRANGeo R-001-KO SS** Stainless steel mesh and stainless steel stitching wire
- **FIBRANGeo R-001-KO GS** Galvanized steel mesh and stainless steel stitching wire

Designation code:

**MW(Mineral Wool)- EN 14303- T2- ST(+)<sup>650</sup> - WS1 - MU1 - AW1 – AFr60 - CL10 - F10 - PH10.5**

Technical Characteristics	Symbol EN-13162	Unit	Value	EN standard
Declared thermal conductivity at 10 °C	$\lambda_D$	W/(mK)	<b>0,033</b>	EN 12667 EN 13787
Maximum Service Temperature	ST(+)	°C	650	EN 14706
Nominal thickness	$d_N$	mm	30 - 120	EN 823
Fire classification	-	Class	A1 (Non-combustible)	EN 13501-1
Melting temperature	-	°C	>1000	DIN 4102-17
Specific heat capacity	$c$	kJ/kg*K	0,84	-
Thickness tolerance	T	Class	T2 (-5%, +15 %)	EN 14303
Short Term Water Absorption for 24 h	WS	kg/m <sup>2</sup>	<1	EN 1609
Water vapour diffusion resistance factor $\mu$	MU	-	1	EN 12086
Water leachable chloride, fluoride and PH-value	CL, F, PH	mg/kg	< 10 AS-quality for use over stainless steel. PH-value neutral to slightly alkaline	EN 13468 ASTM C795 ASTM C692 ASTM C871
Air flow resistivity, $r$	AF <sub>r</sub>	kPa s/m <sup>2</sup>	60	EN 29053
Weighted Sound Absorption Coefficient $\alpha_w$ (Thickness 50 mm)	AW	-	1 ( Class A)	EN ISO 11654 EN ISO 354
Density, $\rho$	-	kg/m <sup>3</sup>	100	EN 1602

#### Declared Thermal Conductivity $\lambda_D$

Mean Temperature	$\theta_M$	°C	50	100	150	200	250	300	350	400	500	600	650	EN 14303
Declared Thermal Conductivity	$\lambda_{N,P}$	W/mK	0,040	0,045	0,051	0,058	0,066	0,076	0,087	0,098	0,125	0,156	0,174	EN 12667 EN 13787



## Certifications

All FIBRAN<sup>geo</sup> stonewool insulation products meet the QUALITY and SAFETY requirements of the European Standards.

***The quality of FIBRAN<sup>geo</sup> products is assured in accordance with EN 14303, EN 13162, EN ISO 13787 and EN 13172 standards.***

***These standards establish the type and frequency of measurements executed both by recognised and independent institutions, as well as by FIBRAN laboratories.***

### CE Certification

All FIBRAN<sup>geo</sup> stonewool insulation products conform to the European Directive 89/106/EEC since 2004. In compliance with the above Construction Products Directive, all types of FIBRAN<sup>geo</sup> stonewool products hold the CE marking. Further, they are in conformity with the European Norm EN 14303, which refers to mineral wool insulation products used in building equipment and industrial installations.

Notified Bodies: Forschungsinstitut für Wärmeschutz e.V. München (FIW):

Identification Number 0751

Materialprüfanstalt für das Bauwesen Hannover (MPA BAU):

Identification Number 0764

### EUCEB Certification

All FIBRAN<sup>geo</sup> stonewool insulation products also carry the certification mark EUCEB (European Certification Board for Mineral Wool Products). EUCEB is an independent organization 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) they are not classified as products that cause skin irritation.

### 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.

### Handling and Storage

FIBRAN<sup>geo</sup> 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<sup>geo</sup> 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 the packaging and the boards' edges.

### Application and Personal Protection

For the selection and application of FIBRAN<sup>geo</sup> products all design requirements should be taken into consideration.

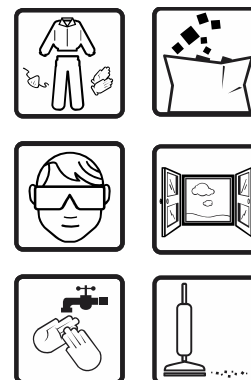
FIBRAN<sup>geo</sup> products should be protected from impregnation, prior to and during application.

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 products 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.



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