

FREEFLOW®-1000X



Free pouring granules of high temperature insulation

FREEFLOW® is a pourable microporous powder with very good thermal properties. The formulation is an opacified blend of pyrogenic silica.

FREEFLOW® is suitable for filling complex shapes and cavities with demanding thermal specifications. It offers insulation solutions for applications where no other conventional insulation can be used.

FREEFLOW® has been recently improved by upgrading its formula. It now offers the same thermal performance at a reduced density, resulting in a lower installed cost.

Technical data

Grade		1000X
Classification temperature	°C	1000
Nominal bulk density	kg/m ³	180
Nominal tap density	kg/m ³	210
Thermal conductivity (in-house cylindrical cell test method)		
200 °C	W/m K	0.026
400 °C	W/m K	0.036
600 °C	W/m K	0.049
800 °C	W/m K	0.064
Specific heat capacity		
200 °C	kJ/kg K	0.93
400 °C	kJ/kg K	1.02
600 °C	kJ/kg K	1.06
800 °C	kJ/kg K	1.10
Shrinkage		
Full soak 24h - 800 °C	%	< 0.5
Full soak 24h - 1000 °C	%	< 3

Delivery sizes

FREEFLOW® is a granular powder in which the granule size (bead size) can vary between 0.5 and 2.5 mm. The standard bag size is 15 kg.

Production tolerances

The tolerance on the density of FREEFLOW® is ± 40 kg/m³.

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Properties & advantages

- Low thermal conductivity
- High thermal stability
- Non-combustible
- Easy to install
- Suitable for automated feeding of complex shapes
- Environmentally friendly, free of organic binders
- Resistant to most chemicals

Application areas

Microporous insulation offers an extremely low thermal conductivity, close to the lowest theoretically possible at high temperatures. Microporous materials are the preferred choice when a large temperature reduction is required within a limited space, or when strict heat loss or surface temperature requirements are specified.

ENERGY

- Fuel cells (SOFC) and reformers

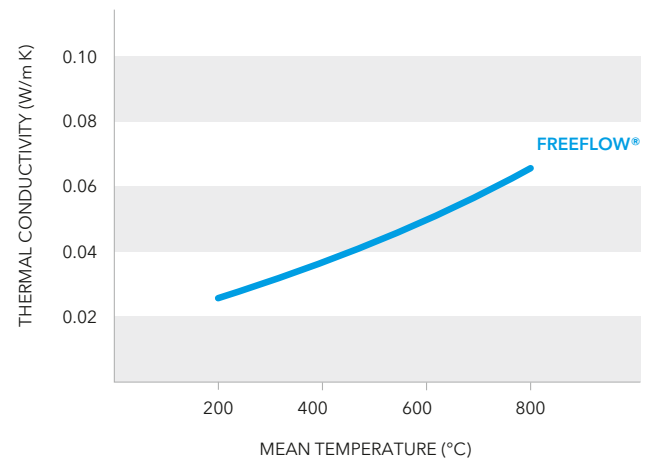
TRANSPORTATION

- Filling of complex cavities

Working & processing

FREEFLOW® is a pourable microporous powder. To obtain the optimal thermal performance it is necessary to achieve the specified "tap density", for example by filling under vibration.

Thermal conductivity



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