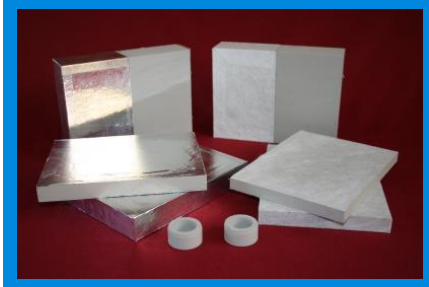
DATA SHEET

Rev. N° 0 - 16.06.2021



5MS.004
Nanoporous Silica
Nano-T

Applications

- Tapping launders
- Refractory coatings
- Storage, heating systems
- Melting furnaces
- Industrial furnaces
- Flame protection
- Thermal insulation
- Glass treatment

Overview

Nanoporous ceramic are extremely light products for insulation purposes. Their high insulation capacity is a direct result of their nanoporous structure. There are only temporary contacts between particles and the surface ratio is the lowest possible. As a result, the thermal conduction between solid particles is reduced to a minimum. Nanopores also limit convective heat transfer.

All these characteristics make this type of material more efficient than conventional insulating materials such as mineral fibres, refractory bricks and other inorganic products.

This product consists of silica and opacifying agents to minimize infrared radiation.

This material can be protected by various types of packaging, in order to facilitate its use and conservation. For example, PE film or aluminium foils can be employed as a reinforcing material. This packaging also protects the product against mould. Nano T must also be protected against liquids, which may destroy its nanoporous structure.

Main Propoerties

- Resistance to high temperatures
- Very low thermal conduction
- Good machinability for shaping parts
- Reinforcement by PE film, aluminium foil and more available
- Class A1 flame protection
- Thermal shock resistance
- Excluded from all carcinogenic classifications
- Stored as a non-hazardous and non-pollutant product
- Protective packaging is required

Physical variables included in this documentation are provided by way of indication only and do not, under any circumstances, constitute a contractual undertaking. Please contact our technical service if you require any additional information.

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Technical Data

Property		Unit	Nano T Ultra
Item N°			115-1000
Chemical Composition, after firing	SiO_2	%	75-85
	SiC		12-20
	Other		3-10
Ignition Loss		%	< 1.5
Density		kg/m^3	230
Fire Classification		°C	950
Cold Compressive Strength		MPa	0.42
Shrinkage	Both side at 950 °C, 24 hr	%	< 3
	One side at 950 °C, 12 hr		< 0.5
Thermal Conductivity	at 200 °C	$W.m^{-1}.K^{-1}$	0.02
	at 400 °C		0.027
	at 600 °C		0.034
	at 800 °C		0.044

Available Products

Product	Type	Dimensions	Thickness
115-1000	Board	1,000 x 650 mm 1,320 x 1,000 mm	10, 12,15, 17, 20, 25, 30, 35, 40, 45, 50 mm
Customed designs are available on request			

Stockage

This product can be stored indefinitely in a dry environment, and may be resistant to humidity, provided that condensation is prevented.

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