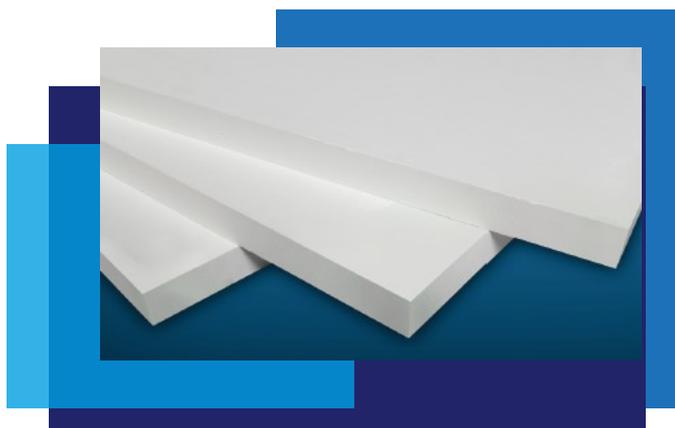


Promat

MONALITE[®]

Technical calcium silicate



Product description

MONALITE[®] materials are asbestos fibre free technical ceramics made from calcium silicate.

MONALITE[®] is used in aluminum casting and the foundry industry and is also used in the furnace industry and other process industries.

MONALITE[®]-M1T is the standard product for contact with molten metals up to 1000°C with low shrinkage.

MONALITE[®]-M1AT is an improved version with a higher density.

TECHNICAL DATA

Grade		-M1T	-M1AT
Colour		White	White
Building material class		A1, non-combustible	A1, non-combustible
Classification temperature	°C	1000°C	1000°C
Nominal density (EN 12467)	kg/m ³	850	990
Cold compressive strength (EN 993-5 2000)	N/mm ²	≤ 20	≤ 21
Bending strength (EN 993-6 1995)	N/mm ²	>6	>8
Specific heat capacity	kJ/kg K	0.96	0.97
Reversible thermal expansion 20°C-750°C	K ⁻¹	6-7x10 ⁻⁶	6-7x10 ⁻⁶
Thermal shrinkage Length-Width 12h@750°C	%	< 0.5%	< 0.5%
Thermal shrinkage Thickness 12h@750°C	%	< 1%	< 1%
Chemical analysis	%		
CaO		38 - 52	38 - 52
SiO ₂		45 - 55	45 - 55
Al ₂ O ₃		1.4	1.4
Fe ₂ O ₃		< 1.1	< 1.1
Thermal conductivity	W/m.K		
200°C		0.274	0.299
500°C		0.283	0.297
800°C		0.294	0.303
Loss on Ignition	%	< 4	< 4

Properties & advantages

- Low thermal conductivity and capacity
- Extremely high thermal shock resistance and fracture toughness
- Non wetted by liquid non-ferrous metals, non reactive to lubricants such as boron nitride or graphite
- Asbestos free
- Dimensionally stable and wear resistant
- Excellent machinability to close tolerances

Typical applications

OIL AND GAS

- Collars, gaskets and pipe support rings
- Spacers and bushes
- Thermal separation for high loads

HEAVY INDUSTRY

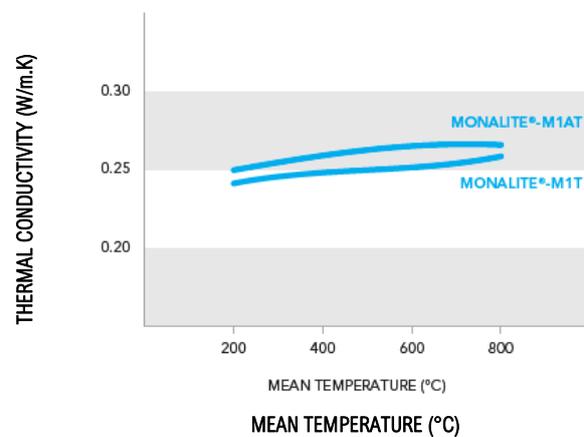
- The non wetting properties of MONALITE® mean that these products are ideally suited for use in non-ferrous casting applications.
- Billet and ingot casting as transition plates, floats, spouts
- Head boxes for continuous casters
- Tips for continuous sheet casters
- Sprue bushes, tubes, nozzles and feeder box liner in low pressure die casting
- Hotface linings for dosing/holding furnaces
- Launderers and dams
- Load bearing housings
- Structural insulation where high thermal and/or mechanical load is required

Working & processing

The homogeneous, fine pored structure is ideal for clean, precision machining. MONALITE® materials can be shaped easily with wood or metal processing machinery using special tools.

When cutting to size, the maximum workplace concentration values for inhalable dust must be observed. Dust extraction is recommended. See product safety information sheet.

Conductivity graph



PRODUCT DIMENSIONS & STANDARD SIZES MIT & MIAT

Length [mm]	Width [mm]	Thickness [mm]
2500	1200	13.1 - 25.8 - 38.5 51.2 - 76.6 - 102

PRODUCTION TOLERANCES MIT & MIAT

Length [mm]	Width [mm]	Thickness [mm]	Density [%]
±1	±1	±0.5	±10

All specified technical data are mean values from the production which are subject to the usual fluctuations and do not represent guaranteed properties in the sense of a guarantee. All information corresponds to the current state of the art and has been presented and described to the best of our knowledge. Changes due to new findings are possible, errors and misprints are not excluded. With regard to any liability, our delivery and payment terms apply exclusively. Request safety datasheet. With the publication of this edition, all previously published datasheets are invalid. © Copyright Etex NV, Brussels, Belgium. All rights reserved. 2022-09

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