MICROTHERM® MPS

Moulded Pipe Sections

MICROTHERM® MPS (MOULDED PIPE SECTIONS) are preformed microporous insulation shells with very good thermal properties. The shells are covered in a glass cloth outer envelope, making them clean and easy to handle. The formulation is an opacified blend of filament reinforced pyrogenic silica.

MICROTHERM® MPS shells have a standard thickness of 25 mm and are designed to fit on standardized pipes. Standard elbows are available for 45° and 90° (others on request).

Technical data

Finishing		Glass cloth (E-glass)
Classification temperature	°C	1000
Nominal density	kg/m³	320
Compressive strength (ASTM C165)	MPa = N/mm²	0.32
Thermal conductivity (ISO 8302, ASTM C177)		
200 °C	W/m K	0.022
400 °C	W/m K	0.024
600 °C	W/m K	0.029
800 °C	W/m K	0.034
Specific heat capacity		
200 °C	kJ/kg K	0.92
400 °C	kJ/kg K	1.00
600 °C	kJ/kg K	1.04
800 °C	kJ/kg K	1.08
Shrinkage		
1-sided 12h – 1000 °C	%	< 0.5
Full-soak 24h – 1000 °C	%	< 3

Delivery sizes

PIPE DIMENSIONS		MICROTHERM® MPS			PIPE DIMENSIONS		MICROTHERM® MPS		
Nominal pipe size DN (inch)	Outer diameter mm	Type L=500 mm T=25 mm	Shells per circum-ference	Shells per linear meter	Nominal (DN) size mm	Outer diameter mm	Type L=500 mm T=25 mm	Shells per circum-ference	Shells per linear meter
15 (1/2")	21	21 (ø int 22 mm)	2	4	100 (4")	114	114 (ø int 117 mm)	2	4
20 (3/4")	27	27 (ø int 28 mm)	2	4	115 (4 ½")	127	127 (ø int 132 mm)	2	4
25 (1")	34	34 (ø int 35 mm)	2	4	125 (5")	140	140 (ø int 145 mm)	2	4
32 (1 ¼")	42	42 (ø int 44 mm)	2	4	150 (6")	168	168 (ø int 171 mm)	2	4
40 (1 ½")	48	48 (ø int 50 mm)	2	4	175 (7")	194	194 (ø int 199 mm)	2	4
50 (2")	60	60 (ø int 62 mm)	2	4	200 (8")	219	219 (ø int 219 mm)	6	12
65 (2 ½")	76	76 (ø int 78 mm)	2	4	250 (10")	273	273 (ø int 273 mm)	6	12
80 (3")	89	89 (ø int 91 mm)	2	4	300 (12")	324	324 (ø int 324 mm)	6	12
90 (3 ½")	102	102 (ø int 104 mm)	2	4					

MICROTHERM® MPS has a standard thickness of 25 mm and a standard length of 500 mm. For diameters bigger than 324 mm we advise the use of other Microtherm products such as MICROTHERM® SLATTED, MICROTHERM® OVERSTITCHED, or MICROTHERM® SEMI-OVERSTITCHED. Combining multiple layers of MICROTHERM® MPS is not always possible. Please contact Promat or Microtherm for more information.

MICROTHERM® MPS

Properties & advantages

- Extremely low thermal conductivity
- High thermal stability
- Non–combustible
- Standardized dimensions
- Quick, clean and easy to install (procedure can be found on our website)
- Simple to cut and shape (procedure can be found on our website)
- No harmful respirable fibres
- Environmentally friendly, free of organic binders
- Resistant to most chemicals

Working & processing

MICROTHERM® MPS can be shaped both manually and with stationary wood processing machinery. The shells can be cut, sawn, and drilled. The shells are installed with wire and straps, identical to conventional insulation materials (the procedure can be found on our website).

Production tolerances		
Length	mm	-1/+10
Thickness	mm	-1/+2

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.

OIL AND GAS

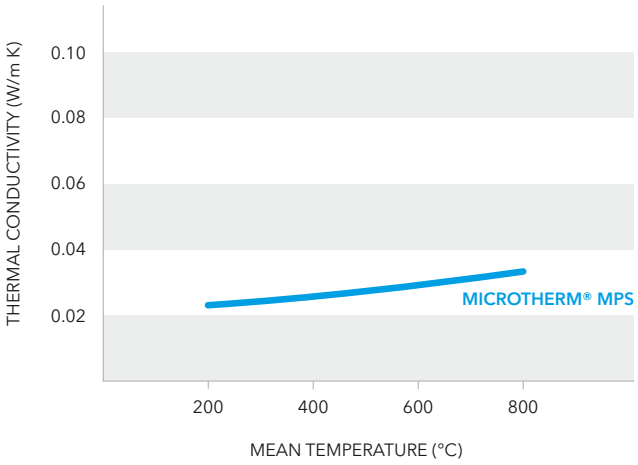
- Petrochemical industry
- Piping insulation

ENERGY

- CSP (Concentrated Solar Power)
- Fuel Cells
- Piping insulation in power plants

PFP (Passive Fire Protection)

Thermal conductivity



Etex Industry c/o Microtherm N.V., Industriepark-Noord 1, 9100 Sint-Niklaas, Belgium | T +32 (0)3 760 19 80 | F +32 (0)3 760 19 99
info@promat-industry.com | www.promat-industry.com