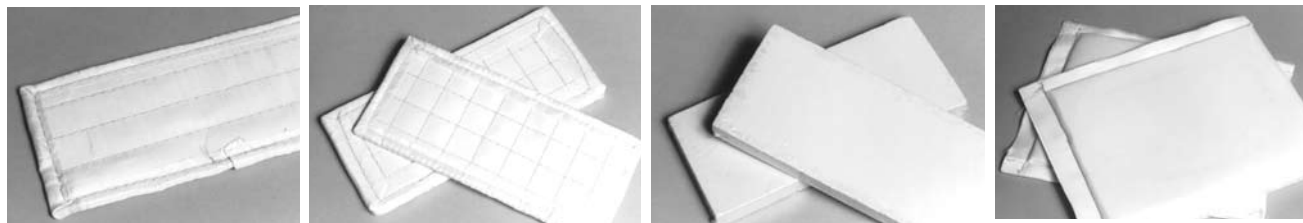


MT-29 SERIES INSULATION

MICROPOROUS INSULATION IN VARIOUS FORMS



Pyrotek offers four types of MT-29 series microporous insulation:

MT-29P—Panel Insulation

MT-29L—Stitched Lining Insulation

MT-29B—Insulating Board

MT-29Q—Quilted Insulation

MT-29P is a unique panel insulation which offers exceptionally low thermal conductivity. The exterior of the panel is a glass fabric which maximizes the strength of the rigid interior panel. The insulation and tensile strength of the panel and standard exterior glass fabric are maintained to 650°C (1200°F). A specialty fabric may be used in place of the glass fabric to allow MT-29P to retain its insulating properties up to its interior panel limit of 1000°C (1832°F).

MT-29L is a microporous insulation material covered with a flexible glass fabric. Parallel-stitched for ease of handling during installation, it resists compression during operation which helps maintain lining stability. The exceptionally low thermal conductivity of MT-29L reduces energy costs without decreasing the capacity of the ladle. Using MT-29L at a thickness of 6.4 mm (0.25 in) has the same insulating value as 63.5 mm (2.5 in) of class 26 insulating fire brick.

MT-29B has the lowest thermal conductivity available from an insulating board. Its cellular structure contributes to its low-weight, good compressive strength, and low shrinkage at high temperatures. A thin shrink-wrapped covering prevents moisture penetration into MT-29 during installation with ramming mixes, castables, and mortars. MT-29B is well suited for applications where space for insulation is limited and where weight is a factor. It is available in standard and hydrophobic formulations.

MT-29Q is quilted to encapsulate its microporous core between glass cloth. The result is a flexible insulating material which offers exceptionally low thermal conductivity. The quilting maintains the core distribution to ensure its insulating effectiveness and provide resistance to vibration. The standard exterior fabric is designed for use of to 650°C (1200°F). A specialty quartz-cloth covering may be used in place of the glass fabric to allow MT-29Q to retain its insulating properties up to its interior core's limit of 1000°C (1832°F).

ADVANTAGES

- Lowest thermal conductivity of any insulating material
- Reduces warping of vessels and troughing
- Promotes greater temperature control
- Minimizes heat transfer
- Can be designed to be reused
- Minimizes hot face temperature of vessels

APPLICATIONS

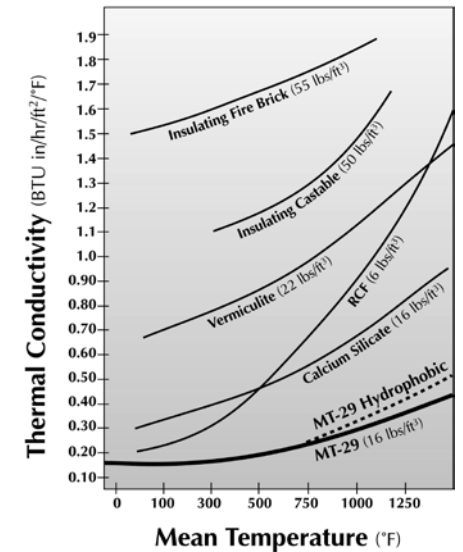
Backup insulation

MT-29 SERIES INSULATION

	Density	Continuous Service Temperature		Linear Shrinkage	Compression			Conductivity			Available Forms*	Thickness
		Standard	Specialty		10%	20%	30%	°C	W/(m·K)			
MT-29P	256 kg/m ³ (16 lb/ft ³)	650°C (1200°F)	1000°C (1832°F)	0.3% @ 538°C (1000°F) 0.6% @ 815°C (1500°F) 1.0% @ 954°C (1750°F)	0.2 MPa (35 lb/in ²)	0.6 MPa (90 lb/in ²)	1.1 MPa (160 lb/in ²)	°C	W/(m·K)		Panels: 610 x 915 mm (24 x 36 in)	13, 19, 25, 32, 38 mm (0.5, 0.75, 1.0, 1.25, 1.5 in)
MT-29L	256 kg/m ³ (16 lb/ft ³)	650°C (1200°F)	1000°C (1832°F)		0.2 MPa (35 lb/in ²)	0.6 MPa (90 lb/in ²)	1.1 MPa (160 lb/in ²)			Standard		
MT-29B	288, 320, 352 kg/m ³ (18, 20, 22 lb/ft ³)	1000°C (1832°F)			0.3 MPa (50 lb/in ²)	0.7 MPa (100 lb/in ²)	1.1 MPa (160 lb/in ²)	260	0.029	0.029	Sheets: 914 x 914 mm, 914 x 1829 mm (36 in x 36 in, 36 in x 72 in)	6, 10 mm (0.25, 0.375 in)
MT-29Q	256 kg/m ³ (16 lb/ft ³)	650°C (1200°F)	1000°C (1832°F)		0.2 MPa (35 lb/in ²)	0.6 MPa (90 lb/in ²)	1.1 MPa (160 lb/in ²)	537	0.042	0.048		
							649	0.049	0.056	Sheets: 457 x 600 mm (18 x 24 in)	13, 19, 25, 32, 35, 38 mm (0.5, 0.75, 1.0, 1.25, 1.375, 1.5 in)	
							°F	BTU in/hr/ft ² °F		Square stitched : 914 x 914 mm (36 x 36 in) Parallel stitched: 915 x 1830 mm (36 x 72 in)	3, 5, 6, 10 mm (13 mm on request) (0.125, 0.1875, 0.25, 0.375 in [0.5 in on request])	
							500	0.20	0.20			
							1000	0.29	0.33			
							1200	0.34	0.39			

*Custom sizes are available. Standard and hydrophobic formulations

Comparison of Thermal Conductivity Values of Popular Insulation Options



**The thermal conductivity curve shown on the graph for MT-29 is based on an average values obtained by sampling 18 pound MT-29B board, and 16 pound MT-29L ladle liner, MT-29P panel, and MT-29Q quilted insulation types.

Note: The physical and chemical properties listed represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice.

Product Type: 509

Commodity Code: 11005