



M-SERIES BOARDS

COMPRESSIBLE/INSULATING BOARDS

M-Series boards are asbestos-free and available for compressible board and some insulating applications.

COMPOSITION

Property	Value			
	M-12	M-13	M-14	M-18
Applications	<ul style="list-style-type: none"> Furnace covers High temperature gaskets Trough lining 	<ul style="list-style-type: none"> Lid gaskets Low density Non-conductive insulation 	<ul style="list-style-type: none"> Mill board substitute Siphon gaskets Trough and ladle linings 	<ul style="list-style-type: none"> High temperature gaskets Mill board substitute Trough linings
Benefits	<ul style="list-style-type: none"> Good insulating ability Low density 	<ul style="list-style-type: none"> Chemical attack resistant Durable Excellent mechanical strength Low air permeability 	<ul style="list-style-type: none"> Chemical attack resistant Moderately compressible Thermal shock resistant Slightly flexible 	<ul style="list-style-type: none"> Chemical attack resistant High compressibility Thermal shock resistant Water mouldable
Availability—mm (in)	<ul style="list-style-type: none"> Sheets: 914 x 610 (36 x 24) Thickness: 9, 13, 19, 25, 43 (0.38, 0.5, 0.75, 1.0, 1.50) 	<ul style="list-style-type: none"> Boards: 1210 x 1219 (48 x 96) Thickness: 3, 6, 13 (0.13, 0.25, 0.50) 	<ul style="list-style-type: none"> Sheets: 914 x 610 (36 x 24) Thickness: 6, 9, 13, 19, 25, 38, 51 (0.25, 0.38, 0.50, 0.75, 1.0, 1.50, 2.0) 	<ul style="list-style-type: none"> Boards: 914 x 610 (36 x 24) Thickness: 3, 6, 13 (0.13, 0.25, 0.50)
Composition	<ul style="list-style-type: none"> 51% SiO₂ 37% Al₂O₃ Refractory silica and alumina binder with some organic materials 	<ul style="list-style-type: none"> 54% SiO₂ 46% Al₂O₃ Organic binder 	<ul style="list-style-type: none"> 46% SiO₂ 42% Al₂O₃ Refractory silica and alumina binder with some organic materials 	<ul style="list-style-type: none"> 55% SiO₂ 37% Al₂O₃ Refractory silica and alumina binder with some organic materials
Density—kg/m³ (lb/ft³)	• 210 (1.3)	• 192 (12) • 384 (24)	• 352 (22)	• 385 (24)
Loss on Ignition	7%	2–5%	6%	7%
Maximum Temperature	1260°C (2300°F)	1260°C (2300°F)	1260°C (2300°F)	1260°C (2300°F)
Continuous Temperature	1260°C (2300°F)	1260°C (2300°F)	1320°C (2400°F)	1260°C (2300°F)
Compressive Strength—MPa (psi)	0.031 (4.5) to 5 percent deformation	–	0.28 (40) to 10 percent deformation	–
Modulus of Rupture—MPa (psi)	0.28 (40) after 815°C (1500°F)	–	0.79 (115) after 815°C (1500°F)	0.24 (350) prior to heating
Thermal Conductivity—W/m-K (BTU-in/ft²-hr-°F) at 240°C (400°F) at 425°C (800°F) at 870°C (1600°F)	0.04 (0.28) 0.05 (0.39) 0.08 (1.36)	0.08 (0.55) at 315°C (600°F) 0.11 (0.75) at 315°C (600°F) 0.14 (1.00) at 315°C (600°F)	0.09 (0.62) 0.10 (0.67) 0.16 (1.14)	0.08 (0.54) at 260°C (500°F) 0.11 (0.75) 0.18 (1.25)

