High Temperature Sheet Products

MICA

Mica sheet is a readily-processible form comprised of a high percentage of mineral held together with small amount of silicon binder. Its lamellar and non-fibrous structure, together with the low ratio of binder allows for a significant reduction of weight loss at elevated temperatures, and especially when compared to other high temperature compositions. It resists a wide array of chemicals and is unaffected by water, acids, bases, solvents and mineral oils.



Typical Physical Properties

Property	Method	Typical Values
Density	IEC 371-2	118 lbs/ft³ (1.9 g/cc)
Tensile Strength	DIN 52910	2,900 psi (20 MPa)
Compressibility	ASTM F36-J	25%
Recovery	ASTM F36-J	35%
Ignition Loss @ 800°C	DIN 52911	<5%
Dielectric Strength	IEC 243 - 23°C	Approx. 20 kV/mm (508 V/mil)
Creep Strength 50MPa, 300°C	DIN 52913	Approx. 5801 psi (40 MPa)
Creep Strength 7252psi, 572°F	DIN 52913	5800 (40 MPa)
MAX Temperature	N/A	1832 (1000)
MAX Pressure	N/A	72.5 psi (5 bar)

Mica sheet is used in automobile exhaust manifolds, gas turbines, gas and oil burners, heat exchangers and other bolted flanged connections.

Note on High Temperature Gaskets: Lamons also utilizes mica in conjunction with oxidation resistant grade flexible graphite as a filler material for spiral wound gaskets, and as a facing material for kammprofiled and corrugated gaskets in the semi-metallic section. While the HTG configuration is not quite as high in temperature rating as mica sheet, it offers the sealing ability for pressure rating found in a semi-metallic gasket design

Ceramic Fiber

Ceramic fiber is available in sheet or blanket form and makes an excellent gasket material for hot air duct work with low pressures and light flanges. It is satisfactory for service up to approximately 2000°F (1093°C). Ceramic material is also used as a filler material in spiral-wound gaskets.

