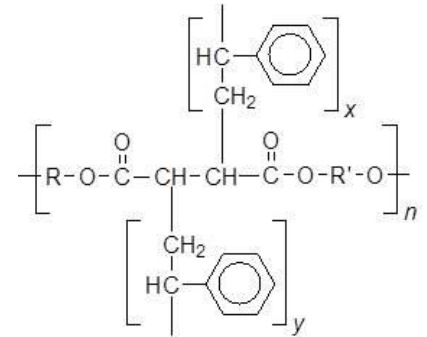


Polyester Resin Composite (Resin/Fabric with Graphite)



SPECIFICATIONS

Property	Units	Value
Temperature Range	-40 to +250°F	-40 to +120°C
Comprehensive Strength (breaking point)		
Normal to Laminate	45,000 psi	310 N/mm ²
Parallel to Laminate	13,000 psi	90 N/mm ²
Tensile Strength	14,000 psi	96 N/mm ²
Shear Strength	9,000 psi	62 N/mm ²
Hardness-Rockwell M		90
Density		1.25 g/cm ³
Swell in water % of wall thickness		<0.15%
Thermal Expansion Coefficient		
Normal to Laminate	68°F to 212°F 5.0 to 5.5 x 10 ⁻⁵	20°C to 100°C 9.0 to 10.0 x 10 ⁻⁵
Parallel to Laminate	2.7 to 3.3 x 10 ⁻⁵	5.0 to 6.0 x 10 ⁻⁵
Coefficient of Friction		
Static		0.15
Dynamic		0.13

DESCRIPTION

MTC17 is a polyester resin composite with hardness 90 Rockwell M and comprised of high temperature resin and fabric with graphic. Fabric reinforced composite materials are engineered from liquid thermosetting resins impregnated in fabric and subsequently cured to form solid shapes. Various thermosetting resins are available for use as bushings and bearing as unsaturated polyester. Within each category there are numerous resins to choose from. Prudent selection of a resin depends upon its viscosity, desired thermal, chemical or mechanical properties. Unsaturated polyester resin is most commonly used. Vinyl ester resin has higher mechanical properties and better chemical and temperature resistance than unsaturated polyester resin. Thermoset composite materials have highly cross linked molecular networks. As a result, they have much higher mechanical strength than thermoplastics.