

Polyester Resin Fabric with Moly (MTC21)

SPECIFICATIONS

Property	Spec	Value
Hardness	Rockwell M	100
C o Friction	Internal	0.08-0.15
Density (g/cm ³)	DIN 53479	1.25-1.48
Tensile Strength-Lengthwise	DIN 53504	90 N/mm ²
Tensile Strength-Crosswise	DIN 53504	76 N/mm ²
Compression Strength \perp to Laminate		345 N/mm ²
Compression Strength = to Laminate		138 N/mm ²
Flexural Strength \perp to Laminate		138 N/mm ²
Flexural Strength = to Laminate		107 N/mm ²
Shear Strength		134 N/mm ²
Modulus	DIN 53504	3200 N/mm ²
Water Absorption		<0.1%
Coefficient of Thermal Expansion	20 to 100° C	
=Laminate	X10 ⁻⁵	6 to 7
\perp to Laminate	X10 ⁻⁵	12 to 13
Min Service Temp.		-35°C -31°F
Max Service Temp.		120°C 240°F
Color		Gray/Blue/Yellow

DESCRIPTION

MTC21 is a polyester resin fabric with moly that has hardness 100 Rockwell M. 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. Phenolic resins are cured very differently and are used for high temperature, high pressure and flame resistant applications. Thermoset composite materials have highly cross linked molecular networks. As a result, they have much higher mechanical strength than thermoplastics.