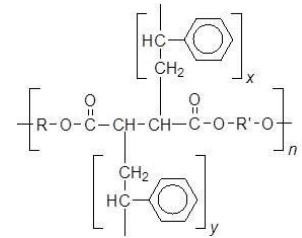


## Polyester Resin Composite (Supplied as a strip)

### SPECIFICATIONS

Property	Spec	Value
Hardness	Rockwell M	80-100
Hardness	DIN 53505	80
C o Friction	Internal	0.08-0.15
Density (g/cm <sup>3</sup> )	DIN 53479	1.25
Tensile Strength-Lengthwise	DIN 53504	90 N/mm <sup>2</sup>
Tensile Strength-Crosswise	DIN 53504	76 N/mm <sup>2</sup>
Compression Strength $\perp$ to Laminate		296 N/mm <sup>2</sup>
Compression Strength = to Laminate		138 N/mm <sup>2</sup>
Yield		60 MPa
Flexural Strength $\perp$ to Laminate		107 N/mm <sup>2</sup>
Flexural Strength = to Laminate		107 N/mm <sup>2</sup>
Shear Strength		134 N/mm <sup>2</sup>
Modulus	DIN 53504	1300 MPa
Water Absorption		<0.1%
C o of thermal expansion		20 to 100°C
= to Laminate	$\times 10^{-5}$	6 to 7
$\perp$ to Laminate	$\times 10^{-5}$	12 to 13
Min Service Temp		-50° C -58° F
Max Service Temp		120° C 240° F
Color		Blue



### DESCRIPTION

MTC02 is a polyester resin composite with hardness 80-100 Rockwell M and 80D. 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.

Fig.1

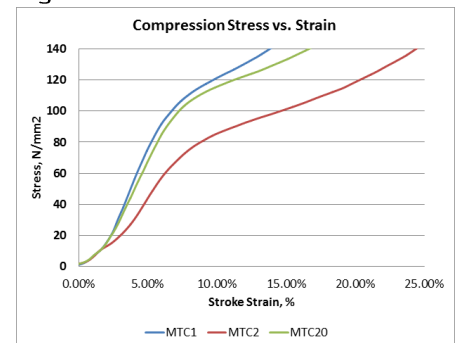


Figure 1 shows stress strain curves for various composite resin materials. Contact System Seals engineering department to determine optimal material for your particular application.