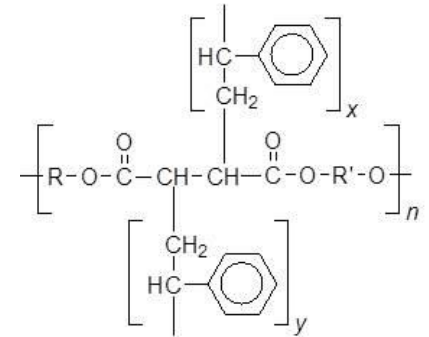
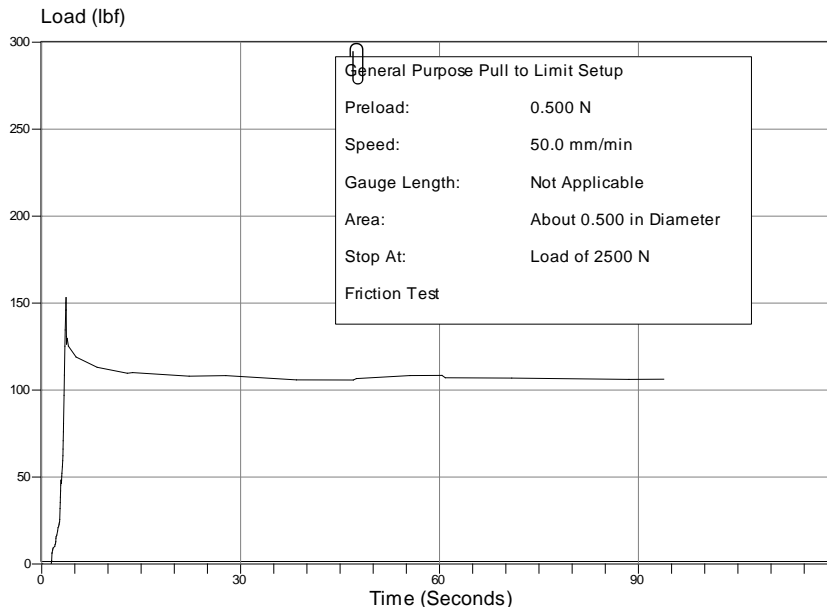


## Polyester Resin Composite (MTC03)

### SPECIFICATIONS

Property	Spec	Value
Hardness	Rockwell M	55
Hardness D	DIN 53505	80
C o Friction	Internal	0.06-0.08*
Density (g/cm <sup>3</sup> )	DIN 53479	1.25
Tensile Strength	DIN 53504	54 N/mm <sup>2</sup>
Modulus	DIN 53504	33,000 N/mm <sup>2</sup>
Water Absorption		<0.1%
Compression Strength $\perp$ to Laminate		345 N/mm <sup>2</sup>
Compression Strength = to Laminate		138 N/mm <sup>2</sup>
Min Service Temp		-35°C -31°F
Max Service Temp		120°C 240°F
Color		Gray

\*The material is primarily used in applications requiring special friction characteristics. The graph below defines the friction force using System Seals friction testing procedure.



### DESCRIPTION

MTC03 is a polyester resin composite with hardness 55 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. 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.