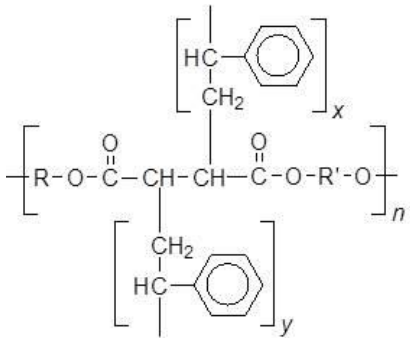
systemseals

MATERIAL SPECIFICATION SHEET

MTC07

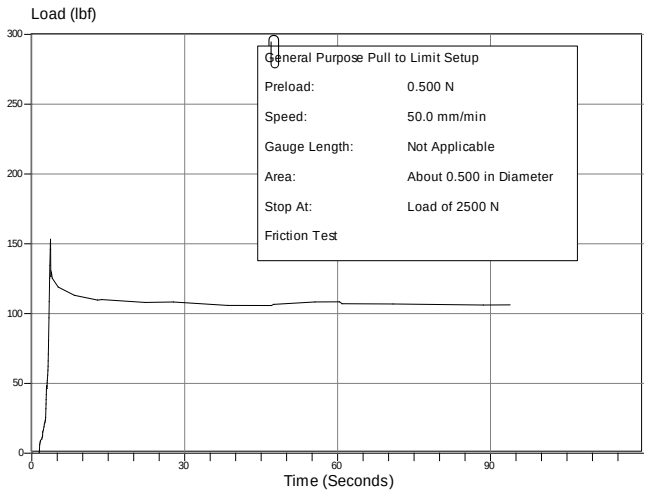
Polyester Resin Composite
(with added PTFE fibers)



SPECIFICATIONS

Property		
Hardness	Rockwell M	75
Hardness D	DIN 53505	80
C o Friction	Internal	0.06-0.08*
Density	DIN 53479	1.25 g/cm³
Tensile Strength	DIN 53504	54 N/mm²
Modulus	DIN 53504	33,000 N/mm²
Water Absorption		<0.1%
Compression Strength ∥ to Laminate		325 N/mm²
Compression Strength ⊥ to Laminate		98 N/mm²
Min Service Temperature		-35°C -31°F
Max Service Temperature		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

MTC07 is a polyester resin composite with hardness 80D and 75M specially compounded with PTFE fibers. 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.