

MATERIAL GRADE: TA 100T



DESCRIPTION

Tribotech's high grade composite materials are manufactured from technical fabrics impregnated with polyester resin and dispersed solid lubricants. Offering superior dimensional stability, compression strength, and lifespan, these materials lend themselves to countless profiles and configurations. By varying the resin additives and fabric reinforcement, the resin matrix can be specifically designed to meet the demands of different environments and applications.

TA 100T features polyester resin combined with PTFE lubrication. TA 100T is non-conductive. It is suitable for applications in which magnetic or electric fields must be prevented. Self-lubricating and maintenance-free, while also tough, durable, and extremely versatile, TA 100T is an excellent alternative to bronze and thermoplastic materials.

SAMPLE APPLICATIONS

- » Hydraulic cylinders
- » Cranes
- » Electrical insulators
- » Agricultural, mining and off-road equipment
- » General industrial bushing applications

MATERIAL BENEFITS

- » Self-lubricating
- » Low friction
- » Excellent load-bearing capability
- » No metallic scoring
- » Negligible water swell
- » Non-conductive
- » Easily machined to precision tolerances
- » Wide range of sizes and profiles

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MECHANICAL PROPERTIES

Temperature Range	-40 to +250° F	-40 to +120° C
Compression Strength <i>(breaking point)</i>		
Normal to Laminate	45,000 psi	310 N/mm ²
Parallel to Laminate	13,000 psi	90 N/mm ²
Tensile Strength	13,000 psi	90 N/mm ²
Shear Strength	9,000 psi	62 N/mm ²
Hardness – Rockwell M	100	
Density	1.25g/cm ³	
Swell in Water % of wall thickness	<0.10%	
Thermal Expansion Coefficient		
Normal to Laminate	68° F to 212° F	20° C to 100° C
Parallel to Laminate	5.0 to 5.5 x 10 ⁻⁵	12 to 13 x 10 ⁻⁵
Parallel to Laminate	2.7 to 3.3 x 10 ⁻⁵	6 to 7 x 10 ⁻⁵
Coefficient of Friction		
Static	0.15	
Dynamic	0.8 – 0.12	
Compressive Yield	85 MPa	
Modulus Compression \perp	1900-2000 N/mm ²	
Flexural Strength \perp to Laminate	138 N/mm ²	
Flexural Strength = to Laminate	107 N/mm ²	

TUBE STOCK Available Sizes

Minimum ID	3/8"	9.5 mm
Maximum OD	25"	635 mm
Standard lengths	27, 32, 40"	685, 813, 1016 mm

MACHINED PARTS Available Sizes

Minimum ID	1/2"	12.7 mm
Maximum OD	48"	650 mm