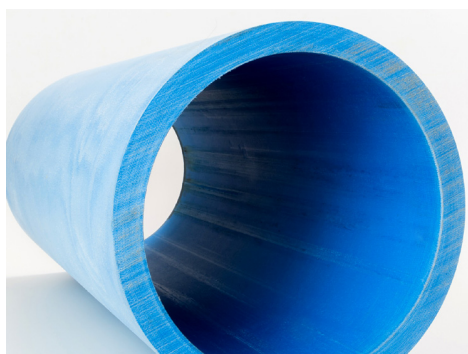


MATERIAL GRADE: TA100

PTFE Composite



DESCRIPTION

General-purpose high-performance grade

TA100 combines a tough fabric-reinforced composite with an integral PTFE lubricant, giving smooth, stick-slip-free motion across a wide range of loads and speeds. Its low coefficient of friction and excellent wear resistance make it the first choice for most hydraulic cylinder bearings, guide bands, and pivot bushings. TA100 performs equally well running dry, greased, or fully immersed, so it is well suited to marine, hydropower, and water treatment equipment. The material swells very little in water, remains dimensionally stable, and will not corrode or damage mating shafts. Where operating conditions are uncertain or varied, TA100 is the safe, proven starting point.

SAMPLE APPLICATIONS

- Hydraulic cylinders
- Cranes
- Agricultural, mining and off-road equipment
- Marine, hydropower and water treatment equipment
- General industrial bushing applications

MATERIAL BENEFITS

- Self-lubricating
- Low friction
- Excellent load-bearing capability
- No metallic scoring
- Negligible water swell
- Electrically insulating and non-magnetic
- Easily machined to precision tolerances
- Wide range of sizes and profiles

MECHANICAL PROPERTIES

Temperature range	-40 to +250 °F	-40 to +120 °C
Compressive strength		
Normal to laminate	45,000 psi	310 N/mm ²
Parallel to laminate	13,000 psi	90 N/mm ²
Tensile strength	14,000 psi	96 N/mm ²
Shear strength	9,000 psi	62 N/mm ²
Hardness, Rockwell M	90	
Density	1.25 g/cm ³	
Swell in water	<0.15% of wall thickness	
Thermal expansion ×10⁻⁵	1/°F (68–212 °F)	1/°C (20–100 °C)
Normal to laminate	5.0–5.5	9.0–10.0
Parallel to laminate	2.7–3.3	5.0–6.0
Coefficient of friction	0.10–0.20	
Color	Blue	

AVAILABLE SIZES

Tube stock		
Minimum ID	3/8"	9.5 mm
Maximum OD	48"	1220 mm
Available lengths	27, 32, 40"	686, 813, 1016 mm
Machined parts		
Minimum ID	3/8"	9.5 mm
Maximum OD	48"	1220 mm
Sheet		
Minimum thickness	1/8"	3.2 mm
Maximum thickness	4"	102 mm
Maximum length	48"	1220 mm
Maximum width	30"	762 mm

Values are typical and measured in laboratory conditions, primarily to DIN test standards; hardness is measured on the Rockwell M scale. Strength values are loads at failure. Performance in service may vary. For more about our test methods, please contact us.