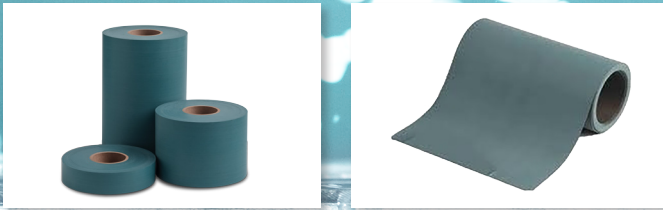




Turcite® B

THE GOLD STANDARD IN HIGH EFFICIENCY MACHINING



Turcite® B from Trelleborg Sealing Solutions is a polytetrafluoroethylene (PTFE) based bearing material with low friction for machine tool industry linear bearing applications.

Testing has shown that PTFE based compounds are resistant to virtually all media, cutting fluids and slideway oils. Additionally, these compounds feature outstanding wear resistance and friction characteristics.

Head-to-head material testing has shown that Turcite® B outperforms key competitive materials for low friction. Turcite® B was developed to meet the needs of machine tool manufacturers looking to improve machine tool efficiencies through low friction material technology, reduce stick-slip effect in machine transitions while still maintaining positioning accuracy and vibration damping.

Features and Benefits of Turcite® B

- Low friction without stick slip for positional accuracy at different velocities, especially low speeds
- Low coefficient of friction in intermittent lack of lubrications
- Chemical resistant to a broad range of lubricants for extended product life
- Reduces machine tool vibration through damping characteristics
- Minimal abrasion of hardware, preventing damage to counter surfaces
- High wear resistance for extended product life
- Thicknesses to meet design requirements

Turcite® B Typical Properties

MECHANICAL PROPERTIES	TEST METHOD	METRIC	IMPERIAL
SPECIFIC GRAVITY	ASTM D792	2.0 – 2.4	2.0 – 2.4
TENSILE STRENGTH	ASTM D4745	13.8 MPa	2002 psi
TENSILE ELONGATION AT BREAK	ASTM D4745	100%	100%
HARDNESS	ASTM D2240	50–60 Type D	50–60 Type D
PEEL STRENGTH (Bonded to metal substrate using Waylock® II)	TSS INTERNAL	178 N /mm	40 lbf /in
COMPRESSIVE STRENGTH	ASTM D695		
0.2% OFFSET		7.6 MPa	1102 psi
1% STRAIN		6.1 MPa	885 psi
5% STRAIN		13.2 MPa	1915 psi
YOUNGS MODULUS		722 MPa	105 ksi
DEFORMATION UNDER LOAD	TSS INTERNAL		
2 kg/cm ² @ 0.203 mm/min		0.016 mm	
4 kg/cm ² @ 0.203 mm/min		0.030 mm	
6 kg/cm ² @ 0.203 mm/min		0.043 mm	
28 lb/in ² @ 0.008 in/min			0.0006 in
57 lb/in ² @ 0.008 in/min			0.0012 in
85 lb/in ² @ 0.008 in/min			0.0017 in
THERMAL PROPERTIES			
COEFFICIENT OF LINEAR THERMAL EXPANSION	ASTM E831		
25°C TO 100°C		103.5 µm/m°C	
100°C TO 150°C		135.7 µm/m°C	
77°F TO 212°F			57.5 µin/in°F
212°F TO 302°F			75.4 µin/in°F
THERMAL CONDUCTIVITY	TCi THERMAL ANALYZER		
23°C		0.36 W/m-K	
73.4°F			0.36 W/m-K
TRIBOLOGICAL PROPERTIES			
WEAR FACTOR, K: LUBRICATED, TONNA V68 WAY OIL	TSS INTERNAL	3.57 E-08 mm ³ /Nm	2.47 E-13 in ³ /lb-in
FRICTION COEFFICIENT: LUBRICATED, TONNA V68 WAY OIL	TSS INTERNAL	0.034	0.034
COLOR DESCRIPTION			
TURQUOISE BRONZE			



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