

## **TriStar CJ Composite Bearing**

Category: Polymer, Thermoplastic, Fluoropolymer, PTFE

## **Material Notes:**

This family of materials offers the combination of high compressive strength, low coefficient of friction, and excellent abrasion and corrosion resistance while running without lubrication. They are used in bearing and seal applications from temperature extremes of -320°F to 350°F with and without additional lubricants. TriStar CJ Composite Bearing: Multi-layer lightweight construction provides dry lubrication with high reliability. The innermost layer features a braided synthetic fiber/PTFE tubular liner saturated with epoxy resin. A low helix angle layer of epoxy-coated glass filaments follows for axial strength. Multiple high helix angle layers comprise the outer structure and provide compressive strength. Ideally suited for non-lubricated high-load/low-speed shock load applications. Operates well in demanding and destructive environments. Rc 50 and higher steel mating surface. Material has thermal and electrical insulating properties. Suitable for use in steam, wet, dry, or vacuum environments. Markets for CJ Composite Bearings include Agricultural, Appliances, Automotive, Construction, Industrial, and Transportation.

Order this product through the following link: http://www.lookpolymers.com/polymer\_TriStar-CJ-Composite-Bearing.php

Physical Properties	Metric	English	Comments
Density	1.90 g/cc 0.0686 lb/in <sup>3</sup>		
Water Absorption	<= 0.50 %	<= 0.50 %	
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	103	103	
Compressive Strength	345 MPa	50000 psi	
Shear Strength	34.5 MPa	5000 psi	
Izod Impact, Notched	7.47 J/cm	14.0 ft-lb/in	
Coefficient of Friction, Dynamic	0.080	0.080	Dry vs. Steel
Coefficient of Friction, Static	0.50	0.50	Dry vs. Steel
Limiting Pressure Velocity	0.876 MPa-m/sec	25000 psi-ft/min	Unlubricated

Thermal Properties	Metric	English	Comments
CTE, linear	126 μm/m-°C	70.0 μin/in-°F	
Thermal Conductivity	0.202 W/m-K	1.40 BTU-in/hr-ft <sup>2</sup> -°F	
Maximum Service Temperature, Air	177 °C	350 °F	



Thermal Properties	Metric	English	Comments	
Minimum Service Temperature, Air	-196 °C	-320 °F		

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.41e+18 ohm-cm	2.41e+18 ohm-cm	
Surface Resistance	3.93e+15 ohm	3.93e+15 ohm	
Dielectric Constant	4.15	4.15	
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dissipation Factor	0.0094	0.0094	
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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