

## **TriStar Ultracomp UC-400 Composite Bearing**

Category: Polymer, Thermoplastic

## **Material Notes:**

Ultracomp UC-400 - Designed for high loads, low speeds, impact and vibration applications. UC-400 has a MOS2 additive for salt water applications where cathodic reactions could occur. Excellent dry wear properties in slow rotary or reciprocating bearings. This family of composite 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 cryogenic to over 360°F with and without additional lubricants. Ultracomp Bearing Grade Composite: Laminates composed of synthetic fabrics impregnated by thermosetting resins and solid lubricant fillers. Material is available in tubes and sheets. Ideally suited for non-lubricated ultra high-load/low-speed applications that require a low coefficient of friction. Operates well in demanding and destructive environments. Suitable for use in steam, wet, dry, or vacuum environments. Rc 35 or higher steel mating surface. Markets for Ultracomp Bearing Grade Composite include Agricultural, Appliances, Automotive, Construction, Industrial, and Transportation.

Order this product through the following link:

http://www.lookpolymers.com/polymer\_TriStar-Ultracomp-UC-400-Composite-Bearing.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.32 g/cc	1.32 g/cc	
Water Absorption	<= 0.10 %	<= 0.10 %	24 hrs

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	100	100	
Tensile Strength, Yield	65.5 MPa	9500 psi	
Compressive Yield Strength	96.5 MPa	14000 psi	Perpendicular to Laminate
Ultimate Compressive Strength	359 MPa	52000 psi	Perpendicular to Laminate
Compressive Modulus	5.17 GPa	750 ksi	Perpendicular to Laminate
Machinability	4.0 %	4.0 %	1=Easy; 10=Hard
Shear Strength	145 MPa	21000 psi	
Izod Impact, Notched	>= 10.7 J/cm	>= 20.0 ft-lb/in	
Coefficient of Friction, Static	0.15	0.15	Dry vs. Steel
Limiting Pressure Velocity	0.876 MPa-m/sec	25000 psi-ft/min	Unlubricated

Thermal Properties	Metric	English	Comments
CTE, linear	72.0 - 180 μm/m-°C	40.0 - 100 μin/in-°F	



Maximum Service Temperature, Air Thermal Properties	168 °C Metric	235 °F English	Comments
	182 °C	360 °F	Short Term
Minimum Service Temperature, Air	-240 °C	-400 °F	Embrittlement Temp

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

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