



Ultracomp® UC500M

Technical Specs

Property	ASTM Method	Value	Metric
Physical Properties			
Compressive Strength	D695		
Ultimate		51,000 PSI	351 MPa
Yield		15,000 PSI	103 MPa
Parallel		13,500 PSI	93 MPa
Modulus		500,000 PSI	3,447 MPa
Tensile Strength	D638	12,000 PSI	83 MPa
Tensile Modulus of Elasticity	D638	510,000 PSI	3,500 MPa
Poisson's Ratio	D3039-08		0.231
Shear Strength	D2344	12,000 PSI	82 MPa
Flexural Modulus of Elasticity	D790	260,000 PSI	1,793 MPa
Hardness Rockwell M	D785		100
Density	D792	0.047 lbs/in ³	1.3 g/cm ³
Water Swell	D570		<0.15%
Mechanical Properties			
Coefficient of Friction - Dry Dynamic			0.10-0.15
Electrical Properties			
Dielectric Strength	D149-97a		200 volts/mil
Volume Resistivity	D257-07		4.2 x 10 ¹⁵ ohm-cm
Thermal Properties			
Operating Temperatures		-40° to 200° F	-40° to 93° C
Coefficient of Thermal Expansion			
Normal to Laminate		3.5x10 ⁻⁵ /Δ° F	6.3x10 ⁻⁵ /Δ° C
Parallel to Laminate		1.8x10 ⁻⁵ /Δ° F	3.24x10 ⁻⁵ /Δ° C

Product Description

Ultracomp UC500M is manufactured with polyester textile and a high grade marine polyester resin with the solid lubrication additives PTFE and molybdenum disulfide (MoS₂) evenly dispersed throughout the resin. This superior marine resin offers better chemical resistance and improved physical properties over standard resins. Benefits:

- Environmentally friendly
- Self-lubricating
- Low coefficient of friction
- Suited for fresh or salt water
- High load capacity
- Negligible water swell

Ultracomp UC500M is Type Approved by ABS (American Bureau of Shipping) and RINA for Stern Tube Bearings and Rudder Bearings.

We're ready to put our engineering expertise to work for you from prototype to production.

Engineering | Custom Fabrication | Manufacturing



CJ Composite

- Self-Lubricating
- Low weight | High Strength
- Chemical Resistance
- Direct replacement for Bronze



Ultracomp[®]

- Self-Lubricating
- High Load | Low Speed
- 54,400 PSI Compressive Strength
- Exceptional Resistance to Vibration and Impact



TriSteel[™]

- Self-Lubricating
- High Load | High Speed
- Metal Backed Bearing System
- 100% Lead Free



Rulon[®]

- Self-Lubricating
- Low weight | High Strength
- Low Coefficient of Friction
- Chemically Resistant



TriStar



Engineered Plastic Solutions[™]

tstar.com

1.800.874.7827