

MATERIAL DATASHEET Hycomp™ Composite H320®

- Features & Benefits:**
- Black color, sheet molding compound, proprietary custom polyimide, Hot Compression Molded (HCM), glass fiber filling (e-glass, 1" long)
 - Low to moderate speed, high temperature, high load, wear resistant, good thermal/electrical insulation

Properties	Test Methods	Typical Values	Units
PHYSICAL			
Specific Gravity	ASTM D792	1.88	-
Water Absorption	-	<0.5	% by wt.
MECHANICAL			
Tensile Strength	ASTM D638	234 [34,000]	MPa [psi]
RT		179 [26,000]	
Tensile Modulus	ASTM D638	18.6 [27.0]	GPa [psi x 10 ⁵]
RT		13.1 [19.0]	
Flexural Strength	ASTM D790	434 [63,000]	MPa [psi]
RT		372 [54,000]	
Flexural Modulus	ASTM D790	21.4 [31.0]	GPa [psi x 10 ⁵]
RT		19.3 [28.0]	
Compressive Strength	ASTM D695	231 [48,000]	MPa [psi]
RT		228 [33,000]	
Izod impact, notched - RT	ASTM D256	1333 [25]	J/m [ft-lb/in]
THERMAL			
Thermal Expansion*	ASTM E831	43.2 [24]	m/m/°C [in/in/°F] x 10 ⁻⁶
perpendicular	ASTM E831	14.4 [8]	
parallel	-	315 [600]	°C [°F]
Temperature Range	-	-	-
WEAR CHARACTERISTICS			
Coefficient of Friction**	ASTM D3702	NA	-
Limiting PV (Unlubricated)	-	NA	MPa·m/s [psi·Sf/Min.]
GENERAL			
Reinforcing Materials	-	Glass Fibers	-
Resin Matrix	-	Polyimide	-
CHEMICAL COMPATIBILITY			
Sea Water	-	Recommended	-
Dilute Acids	-	Recommended	-
Weak Bases	-	Recommended	-
Alcohols	-	Recommended	-
Hydrocarbons	-	Recommended	-
Strong Bases (pH>10)	-	Not Recommended	-

*Measurements were conducted in a temperature range from 40°C to 260°C.

** Values were obtained under thrust washer test PV conditions: pressure (P) 100 psi, velocity (V) 100 f/m.

Measured by standard ASTM methods on machined, compression-molded test specimens

Patents issued and pending. This information is based on our experience to date and we believe it to be reliable.

It is intended to be used only as a guide for use at your discretion and risk.

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The table above represents typical values, intended for reference only. They should NOT be used as a basis for design specifications or quality control.

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