

MATERIAL DATASHEET

HYCOMP™ COMPOSITES Wearcomp® 200

- Features:** Sheet molding compound, Polyimide material, Carbon Fibers (1" chopped) + graphite
- Benefits:** Ideal for medium speed, high load, high impact applications, Fiber content decreased because of added Graphite, Hot compression molded (HCM), Lower coefficient of friction than Wearcomp®

Properties	Degrees	Typical Values	Units
PHYSICAL			
Specific Gravity	-	1.59	-
Water Absorption	-	<0.5	% by wt.
MECHANICAL			
Tensile Strength			
RT	-	138 [20,000]	MPa [psi]
260°C [500°F]	-	117 [17,000]	
Tensile Modulus			
RT	-	29,648 [4,300,000]	MPa [psi]
260°C [500°F]	-	27,580 [4,000,000]	
Flexural Strength			
RT	-	209 [30,250]	MPa [psi]
260°C [500°F]	-	172 [25,000]	
Flexural Modulus			
RT	-	28,407 [4,120,000]	MPa [psi]
260°C [500°F]	-	27,028 [3,920,000]	
Compressive Strength			
RT	-	296 [43,000]	MPa [psi]
260°C [500°F]	-	193 [28,000]	
Izod impact, notched - RT	-	320 [6]	J/m [ft-lb/in]
THERMAL			
Thermal Expansion			
perpendicular	-	27 [15]	µm/m/°C [µin/in/°F]
parallel	-	3.6 [2]	
Temperature Range	-	315 [600]	°C [°F]
WEAR CHARACTERISTICS			
Coefficient of Friction	-	0.15 - 0.20	-
Limiting PV (Unlubricated)	-	3.5 [100,000]	MPa·m/s [psi·Sf/Min.]
GENERAL			
Reinforcing Materials	-	Carbon Fiber / Graphite	-
Resin Matrix	-	Polyimide	-
CHEMICAL COMPATIBILITY			
Sea Water	-	Recommended	-
Dilute Acids	-	Recommended	-
Weak Bases	-	Recommended	-
Alcohols	-	Recommended	-
Hydrocarbons	-	Recommended	-
Strong Bases (pH>10)	-	Not Recommended	-

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