

PolyOne Edgetek® 5209 Natural 1 Acetal (POM) Copolymer

Category : Polymer , Thermoplastic , Acetal (POM) , Acetal Copolymer, Unreinforced

Material Notes:

The Edgetek® Engineering Thermoplastic Compounds portfolio covers a broad range of standard and custom-formulated high performance materials. This portfolio includes high-temperature materials for elevated service temperature environments, high-modulus / structural materials for load-bearing and high-strength applications and flame-retardant products. These compounds are based on select engineering thermoplastic resins that are compounded with reinforcing additives such as carbon fiber, glass fiber and glass beads. Information provided by PolyOne

Order this product through the following link:

http://www.lookpolymers.com/polymer_PolyOne-Edgetek-5209-Natural-1-Acetal-POM-Copolymer.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.41 g/cc	1.41 g/cc	ASTM D792
Water Absorption	0.20 % @Thickness 3.18 mm	0.20 % @Thickness 0.125 in	@ 24 hrs; ASTM D570
Linear Mold Shrinkage, Flow	0.025 - 0.027 cm/cm	0.025 - 0.027 in/in	ASTM D955
Melt Flow	8.2 g/10 min @Load 2.16 kg, Temperature 190 °C	8.2 g/10 min @Load 4.76 lb, Temperature 374 °F	Procedure A; ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	65.5 MPa	9500 psi	Type I, 5.1 mm/min; ASTM D638
Elongation at Break	40 %	40 %	Type I, 5.1 mm/min; ASTM D638
Tensile Modulus	2.52 GPa	365 ksi	Type I, 5.1 mm/min; ASTM D638
Flexural Strength	89.6 MPa	13000 psi	ASTM D790
Flexural Modulus	2.52 GPa	365 ksi	ASTM D790
Izod Impact, Notched	0.690 J/cm @Thickness 3.18 mm, Temperature 23.0 °C	1.29 ft-lb/in @Thickness 0.125 in, Temperature 73.4 °F	Injection Molded; ASTM D256A

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	86.0 µm/m-°C	47.8 µin/in-°F	ASTM D696
Deflection Temperature at 1.8 MPa (264 psi)	110 °C @Thickness 3.18 mm	230 °F @Thickness 0.125 in	Unannealed; ASTM D648

Processing Properties	Metric	English	Comments
Melt Temperature	188 - 210 °C	370 - 410 °F	
Mold Temperature	48.9 - 82.2 °C	120 - 180 °F	
Drying Temperature	82.2 °C	180 °F	
Dry Time	2.00 hour	2.00 hour	

Descriptive Properties	Value	Comments
Features	Copolymer	
	General Purpose	
	Good Wear Resistance	
	Low Friction	
Forms	Pellets	
Generic Material	Acetal (POM) Copolymer	
Generic Name	Acetal (POM) Copolymer	
Processing Method	Injection Molding	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Uses	Automotive Applications	
	Bearings	
	Business Equipment	
	Consumer Applications	
	Gears	
	General Purpose	
	Industrial Applications	
	Pulleys	

Descriptive Properties	Rollers Value	Comments
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