

Solvay Specialty Polymers Udel[®] GF-110 Polysulfone (PSU), Glass Fiber

Category : Polymer , Thermoplastic , Polysulfone (PSU) , Polysulfone, 10% Glass Fiber Reinforced

Material Notes:

Udel[®] GF-110, resin is a 10% glass fiber reinforced polysulfone (PSU). Glass fiber substantially increases the rigidity, tensile strength, creep resistance, dimensional stability and chemical resistance of the polysulfone resin. The high performance properties and attractive price make these resins particularly effective alternatives to metals in many engineering applications. Features: Acid Resistant; Alcohol Resistant; Alkali Resistant; Good Chemical Resistance; Good Creep Resistance; Good Dimensional Stability; Good Strength; High Heat Resistance; High Rigidity; Hydrocarbon Resistant; Hydrolytically Stable Uses: Appliance Components; Appliances; Connectors; Fittings; Food Service Applications; Industrial Parts; Microwave Cookware; Plumbing Parts; Valves/Valve Parts Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Udel-GF-110-Polysulfone-PSU-Glass-Fiber.php

Physical Properties	Metric	English	Comments
Density	1.33 g/cc	0.0480 lb/in ³	ASTM D792
Linear Mold Shrinkage, Flow	0.0040 cm/cm	0.0040 in/in	
Melt Flow	6.5 g/10 min @Load 2.16 kg, Temperature 343 °C	6.5 g/10 min @Load 4.76 lb, Temperature 649 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength	77.9 MPa	11300 psi	ASTM D638
Elongation at Break	4.0 %	4.0 %	ASTM D638
Tensile Modulus	3.72 GPa	540 ksi	ASTM D638
Flexural Strength	128 MPa	18600 psi	ASTM D790
Flexural Modulus	3.79 GPa	550 ksi	ASTM D790
Izod Impact, Notched	0.480 J/cm	0.899 ft-lb/in	ASTM D256
Tensile Impact Strength	101 kJ/m ²	48.1 ft-lb/in ²	ASTM D1822

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	179 °C	354 °F	Unannealed; ASTM D648
Flammability, UL94	HB @Thickness 3.18 mm	HB @Thickness 0.125 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	3.00e+16 ohm-cm	3.00e+16 ohm-cm	ASTM D257
Dielectric Constant	3.15	3.15	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	3.18	3.18	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
Dielectric Strength	19.0 kV/mm	483 kV/in	ASTM D149
Dissipation Factor	0.00070	0.00070	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
Dissipation Factor	0.0060	0.0060	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	

Compliance Properties	Metric	English	Comments
NSF	Yes	Yes	NSF 61

Processing Properties	Metric	English	Comments
Melt Temperature	343 - 399 Â°C	649 - 750 Â°F	
Mold Temperature	121 - 163 Â°C	250 - 325 Â°F	
Drying Temperature	149 - 163 Â°C	300 - 325 Â°F	
	@Time 10800 - 14400 sec	@Time 3.00 - 4.00 hour	
Back Pressure	0.345 - 0.689 MPa	50.0 - 99.9 psi	

Descriptive Properties	Value	Comments
Agency Ratings	ISO 10993; ISO 10993-Part 1	
Availability	Asia Pacific	
	Europe	
	Latin America	
	North America	
Color	Black; Grey; Natural; Opaque	
Form		

Descriptive Properties	Pellets Value	Comments
Injection Rate	Fast	
Processing Technique	Extrusion; Injection Molding	
RoHS Compliance	RoHS Compliant	
Screw Compression Ratio	2.0:1.0	

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