

Solvay Specialty Polymers Udel® GF-120 Polysulfone (PSU), Glass Fiber

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

Material Notes:

Udel® GF-120, resin is a 20% glass fiber reinforced polysulfone compound. 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; Autoclave Sterilizable; E-beam Sterilizable; Ethylene Oxide Sterilizable; Food Contact Acceptable; Good Chemical Resistance; Good Creep Resistance; Good Dimensional Stability; Good Sterilizability; Good Strength; Heat Sterilizable; High Heat Resistance; High Rigidity; Hydrocarbon Resistant; Hydrolytically Stable; Radiation (Gamma) Resistant; Radiation Sterilizable; Radiotranslucent; Steam Resistant; Steam Sterilizable. Uses: Appliance Components; Appliances; Automotive Electronics; Bobbins; Dental Applications; Electrical Parts; Electrical/Electronic Applications; Fittings; Food Service Applications; Hospital Goods; Industrial Parts; Medical Devices; Medical/Healthcare Applications; Microwave Cookware; Piping; Plumbing Parts; Surgical Instruments; 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-120-Polysulfone-PSU-Glass-Fiber.php

Physical Properties	Metric	English	Comments
Density	1.40 g/cc	0.0506 lb/in ³	ASTM D792
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 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	96.5 MPa	14000 psi	ASTM D638
Elongation at Break	3.0 %	3.0 %	ASTM D638
Tensile Modulus	6.00 GPa	870 ksi	ASTM D638
Flexural Strength	148 MPa	21500 psi	ASTM D790
Flexural Modulus	5.52 GPa	801 ksi	ASTM D790
Izod Impact, Notched	0.530 J/cm	0.993 ft-lb/in	ASTM D256
Tensile Impact Strength	109 kJ/m ²	51.9 ft-lb/in ²	ASTM D1822

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	180 °C	356 °F	Unannealed; ASTM D648

Thermal Properties	^{HB} Metric	^{HB} English	Comments
	@Thickness 3.18 mm	@Thickness 0.125 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.00e+16 ohm-cm	2.00e+16 ohm-cm	ASTM D257
Dielectric Constant	3.28	3.28	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.31	3.31	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
Dielectric Strength	19.0 kV/mm	483 kV/in	ASTM D149
Dissipation Factor	0.0060	0.0060	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.0080	0.0080	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	

Compliance Properties	Metric	English	Comments
NSF	Yes	Yes	NSF 51; 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; NSF 51; NSF 61	
Availability	Asia Pacific	
	Europe	
	Latin America	

Descriptive Properties	North America Value	Comments
Color	Black; Grey; Natural; Opaque	
Form	Pellets	
Injection Rate	Fast	
Processing Technique	Extrusion; Injection Molding	
RoHS Compliance	RoHS Compliant	
Screw Compression Ratio	2.0:1.0	

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