

Solvay Specialty Polymers Udel® GF-110 Polysulfone (PSU) (Unverified Data**)

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. - Black: Udel GF-110 Bk 937 - Grey: Udel GF-110 GY 8057 - Natural: Udel GF-110 NT - Natural: Udel GF-110 NT LE

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-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.33 g/cc	1.33 g/cc	ASTM D792
Linear Mold Shrinkage, Flow	0.0040 cm/cm	0.0040 in/in	ASTM D955
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	UL 94

Electrical Properties	Metric	English	Comments
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Volume Resistivity Electrical Properties	3.00e+16 ohm-cm Metric	3.00e+16 ohm-cm English	ASTM D257 Comments
Dielectric Constant	3.15	3.15	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	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	
	0.0060	0.0060	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	

Processing Properties	Metric	English	Comments
Melt Temperature	343 - 399 °C	649 - 750 °F	
Mold Temperature	121 - 163 °C	250 - 325 °F	
Drying Temperature	149 - 163 °C	300 - 325 °F	
Dry Time	3.00 - 4.00 hour	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 61	Tested at 82 °C (180 °F) (Commercial Hot)
Appearance	Black	
	Grey	
	Natural Color	
	Opaque	
Availability	Asia Pacific	
	Europe	
	North America	

Descriptive Properties	South America Value	Comments
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	
Filler	Glass Fiber Reinforcement	
Forms	Pellets	
Generic	PSU	
Injection Rate	Fast	
Processing Method	Extrusion	
	Injection Molding	
RoHS Compliance	RoHS Compliant	
Screw Compression Ratio	2.0:1.0	
Uses	Appliance Components	
	Appliances	
	Connectors	
	Fittings	
	Food Service Applications	
	Industrial Parts	
	Microwave Cookware	
	Plumbing Parts	

Descriptive Properties	Value/Valve Parts	Comments
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Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com
Email : sales@lookpolymers.com
Tel : +86 021-51131842
Mobile : +86 13061808058
Skype : lookpolymers
Address : United North Road 215,Fengxian District, Shanghai City,China