

Udel® GF-110

Polysulfone
Solvay Specialty Polymers

Message:

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

General Information		
UL YellowCard	E36098-231077	E161096-224285
Filler / Reinforcement	Glass Fiber	
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	
Agency Ratings	ISO 10993	
	ISO 10993-Part 1	
	NSF 61 3	
RoHS Compliance	RoHS Compliant	

Appearance	Black		
	Grey		
	Natural Color		
	Opaque		
Forms	Pellets		
Processing Method	Extrusion		
	Injection Molding		
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)		
	Secant Modulus vs. Strain (ISO 11403-1)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.33	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (343°C/2.16 kg)	6.5	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3720	MPa	ASTM D638
Tensile Strength	77.9	MPa	ASTM D638
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	3790	MPa	ASTM D790
Flexural Strength	128	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	48	J/m	ASTM D256
Tensile Impact Strength	101	kJ/m²	ASTM D1822
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	179	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	3.0E+16	ohms · cm	ASTM D257
Dielectric Strength	19	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	3.18		
1 MHz	3.15		
Dissipation Factor			ASTM D150
60 Hz	7.0E-4		
1 MHz	6.0E-3		
Flammability	Nominal Value	Unit	Test Method
Flame Rating ¹ (3.18 mm)	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	149 to 163	°C	
Drying Time	3.0 to 4.0	hr	

Processing (Melt) Temp	343 to 399	°C
Mold Temperature	121 to 163	°C
Injection Rate	Fast	
Back Pressure	0.345 to 0.689	MPa
Screw Compression Ratio	2.0:1.0	

NOTE

- These flammability ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

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