

Udel® GF-120

Polysulfone
Solvay Specialty Polymers

Message:

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.

Black: Udel® GF-120 Bk 937

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Natural: Udel® GF-120 NT 20

Grey: Udel® GF-120 GY 1234

General Information		
UL YellowCard	E36098-231077	E161096-224285
Filler / Reinforcement	Glass Fiber	
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	
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

Agency Ratings	ISO 10993
	ISO 10993-Part 1
	NSF 51 3
	NSF 61 4
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)
	Viscosity vs. Shear Rate (ISO 11403-2)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.40	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (343°C/2.16 kg)	6.5	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.30	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	6000	MPa	ASTM D638
Tensile Strength	96.5	MPa	ASTM D638

Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	5520	MPa	ASTM D790
Flexural Strength	148	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	53	J/m	ASTM D256
Tensile Impact Strength	109	kJ/m ²	ASTM D1822
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	180	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	2.0E+16	ohms·cm	ASTM D257
Dielectric Strength	19	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	3.31		
1 MHz	3.28		
Dissipation Factor			ASTM D150
60 Hz	8.0E-3		
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			

1.

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

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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