

Veradel® 3330GF

polyethersulfone

Veradel® 3330GF is a 30% glass fiber reinforced grade of polyethersulfone (PESU). Adding glass fiber to polyethersulfone substantially increases the rigidity, tensile strength, creep resistance, dimensional stability and chemical resistance of the material, while maintaining most of its other basic characteristics. The combination of structural properties and cost effectiveness make this resin

an attractive alternative to metals in many engineering applications.

Veradel® 3330GF PESU is an opaque, grayish material in its natural form. However, it can be readily colored.

This grade was formerly marketed as Gafone™ PESU

General

Material Status	 Commercial: Active 	
Availability	 Africa & Middle East Asia Pacific Europe	Latin AmericaNorth America
Filler / Reinforcement	 Glass Fiber, 30% Filler by Weight 	
Features	 Acid Resistant Chemical Resistant Creep Resistant Flame Retardant Good Adhesion Good Dimensional Stability Good Thermal Stability 	 Good Toughness High Heat Resistance High Rigidity High Tensile Strength Hydrolysis Resistant Medium Flow Medium Molecular Weight
Uses	 Appliance Components Appliances Automotive Electronics Batteries Business Equipment Electrical Parts Electrical/Electronic Applications 	 Food Service Applications Industrial Applications Metal Replacement Microwave Cookware Plumbing Parts Valves/Valve Parts
Agency Ratings	• NSF STD-61 ¹	
RoHS Compliance	 RoHS Compliant 	
Appearance	 Colors Available 	• Opaque
Forms	 Pellets 	
Processing Method	 Injection Molding 	

Physical	Typical Value Unit	Test method
Density / Specific Gravity	1.58	ASTM D792
Melt Mass-Flow Rate (MFR) (343°C/2.16 kg)	4.5 g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.30 %	ASTM D955
Water Absorption (24 hr)	0.40 %	ASTM D570

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Mechanical	Typical Value	Unit	Test method
Tensile Modulus	8620	МРа	ASTM D638
Tensile Strength	130	МРа	ASTM D638
Tensile Elongation (Break)	1.9	%	ASTM D638
Flexural Modulus	8620	MPa	ASTM D790
Flexural Strength	179	MPa	ASTM D790
Impact	Typical Value		Test method
Notched Izod Impact	75	J/m	ASTM D256
Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load	,,		ASTM D648
1.8 MPa, Unannealed	216	°C	
CLTE - Flow	3.1E-5	cm/cm/°C	ASTM D696
Electrical	Typical Value	Unit	Test method
Volume Resistivity		ohms·cm	ASTM D257
Dielectric Strength		kV/mm	ASTM D149
Dielectric Constant	.,		ASTM D150
60 Hz	4.11		7.01.11.2100
l kHz	4.13		
1 MHz	4.17		
Dissipation Factor			ASTM D150
60 Hz	1.9E-3		
1 kHz	1.8E-3		
1 MHz	9.4E-3		
Flammability	Typical Value	Unit	Test method
Flame Rating ² (0.79 mm)	V-0		UL 94
Injection	Typical Value	Limit	
Injection Drying Temperature	Typical Value 149 to 177		
	2.5 to 4.0		
Drying Time			
Processing (Melt) Temp	343 to 399 149 to 163		
Mold Temperature		-0	
Injection Rate	Fast		
Screw Compression Ratio	2.0:1.0		

Notes

Typical properties: these are not to be construed as specifications.

¹ Tested at 82 °C (180 °F) (Commercial Hot). Only products bearing the NSF Mark are Certified.

² These flammability ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

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