

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	<ul style="list-style-type: none"> • Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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
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

Mechanical	Typical Value	Unit	Test method
Tensile Modulus	8620	MPa	ASTM D638
Tensile Strength	130	MPa	ASTM D638
Tensile Elongation (Break)	1.9	%	ASTM D638
Flexural Modulus	8620	MPa	ASTM D790
Flexural Strength	179	MPa	ASTM D790

Veradel® 3330GF

polyethersulfone

Impact	Typical Value	Unit	Test method
Notched Izod Impact	75	J/m	ASTM D256
Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load 1.8 MPa, Unannealed	216	°C	ASTM D648
CLTE - Flow	3.1E-5	cm/cm/°C	ASTM D696
Electrical	Typical Value	Unit	Test method
Volume Resistivity	> 1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	17	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	4.11		
1 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	Unit	
Drying Temperature	149 to 177	°C	
Drying Time	2.5 to 4.0	hr	
Processing (Melt) Temp	343 to 399	°C	
Mold Temperature	149 to 163	°C	
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.

www.solvay.com

SpecialtyPolymers.EMEA@solvay.com | Europe, Middle East and Africa

SpecialtyPolymers.Americas@solvay.com | Americas

SpecialtyPolymers.Asia@solvay.com | Asia and Australia

Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

Neither Solvay Specialty Polymers nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this product, related information or its use. Some applications of which Solvay's products may be proposed to be used are regulated or restricted by applicable laws and regulations or by national or international standards and in some cases by Solvay's recommendation, including applications of food/feed, water treatment, medical, pharmaceuticals, and personal care. Only products designated as part of the Solviva® family of biomaterials may be considered as candidates for use in implantable medical devices. The user alone must finally determine suitability of any information or products for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. The information and the products are for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right.

All trademarks and registered trademarks are property of the companies that comprise the Solvay Group or their respective owners.

© 2017 Solvay Specialty Polymers. All rights reserved.