

Veradel® 3320GF

polyethersulfone

Veradel® 3320GF is a 20% 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® 3320GF is an opaque, grayish material in its natural form and can be readily colored.

This grade was formerly marketed as Gafone™ PESU.

General

Material Status	<ul style="list-style-type: none"> Commercial: Active
Availability	<ul style="list-style-type: none"> Africa & Middle East Asia Pacific Europe Latin America North America
Filler / Reinforcement	<ul style="list-style-type: none"> Glass Fiber, 20% Filler by Weight
Features	<ul style="list-style-type: none"> Acid Resistant Creep Resistant Flame Retardant Good Adhesion Good Dimensional Stability High Rigidity High Tensile Strength Hydrolysis Resistant Medium Flow Medium Molecular Weight
Uses	<ul style="list-style-type: none"> Metal Replacement
RoHS Compliance	<ul style="list-style-type: none"> RoHS Compliant
Appearance	<ul style="list-style-type: none"> Colors Available Opaque
Forms	<ul style="list-style-type: none"> Pellets
Processing Method	<ul style="list-style-type: none"> Injection Molding

Physical	Typical Value	Unit	Test method
Specific Gravity	1.49		ASTM D792
Molding Shrinkage - Flow	0.30	%	ASTM D955
Water Absorption (24 hr)	0.50	%	ASTM D570

Mechanical	Typical Value	Unit	Test method
Tensile Modulus	7000	MPa	ASTM D638
Tensile Strength	120	MPa	ASTM D638
Tensile Elongation (Break)	2.8	%	ASTM D638
Flexural Modulus	6500	MPa	ASTM D790
Flexural Strength	170	MPa	ASTM D790

Impact	Typical Value	Unit	Test method
Notched Izod Impact	70	J/m	ASTM D256

Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load 1.8 MPa, Annealed	210	°C	ASTM D648
Continuous Use Temperature ¹	190	°C	ASTM D794
CLTE - Flow	2.5E-5	cm/cm/°C	ASTM D696

Veradel® 3320GF

polyethersulfone

Electrical	Typical Value	Unit	Test method
Surface Resistivity	1.0E+14	ohms	ASTM D257
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	20	kV/mm	ASTM D149
Arc Resistance	110	sec	ASTM D495
Comparative Tracking Index (CTI)	150	V	UL 746

Flammability	Typical Value	Unit	Test method
Flame Rating (0.8 mm)	V-0		UL 94
Oxygen Index	42	%	ASTM D2863

Additional Information

1. These properties has been determined from injection molded test specimen under ideal processing parameters and conditioned at 23+/- 2°C and 50%RH.

Injection	Typical Value	Unit
Drying Temperature	150	°C
Drying Time	3.0	hr
Processing (Melt) Temp	340 to 380	°C
Mold Temperature	120 to 160	°C
Screw Speed	20 to 50	rpm

Extrusion	Typical Value	Unit
Die Temperature	300 to 320	°C

Notes

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

¹ Expected value.

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.