

# Veradel<sup>®</sup> 3300 PREM polyethersulfone

Veradel® PESU was formerly marketed as Gafone™ PESU

Veradel® polyethersulfone (PESU) is tranparent and offers high heat deflection temperatures, excellent toughness and dimensional stability, and resistance to steam, boiling water, and mineral acids. Other desirable properties include thermal stability, creep resistance, and inherent flame resistance. Veradel® 3300 is FDA compliant and therefore approved for direct food contact. Veradel® 3200 is a low melt flow grade that can be processed by extrusion or injection molding. Veradel® 3300 is a medium melt flow grade suggested for general purpose injection molding. Veradel® 3400 is a high melt flow grade designed for easy molding of parts with thin walls or long flow lengths.

#### General

Material Status	Commercial: Active	
Availability	<ul><li> Africa &amp; Middle East</li><li> Asia Pacific</li><li> Europe</li></ul>	Latin America     North America
Features	<ul> <li>Acid Resistant</li> <li>Chemical Resistant</li> <li>Creep Resistant</li> <li>Flame Retardant</li> <li>General Purpose</li> <li>Good Adhesion</li> <li>Good Dimensional Stability</li> <li>Good Thermal Stability</li> </ul>	<ul> <li>Good Toughness</li> <li>High Heat Resistance</li> <li>High Tensile Strength</li> <li>Hydrolysis Resistant</li> <li>Medium Flow</li> <li>Medium Molecular Weight</li> <li>Medium Rigidity</li> </ul>
Uses	<ul> <li>Food Service Applications</li> </ul>	General Purpose
Agency Ratings	NSF STD-51	
RoHS Compliance	RoHS Compliant	
Appearance	<ul> <li>Transparent - Slight Yellow</li> </ul>	
Forms	Pellets	
Processing Method	<ul> <li>Injection Molding</li> </ul>	

Physical	Typical Value Unit	Test method
Specific Gravity	1.37	ASTM D792
Melt Mass-Flow Rate (MFR) (380°C/2.16 kg)	30 g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.60 %	ASTM D955
Water Absorption (24 hr)	0.50 %	ASTM D570
Water Absorption - 30 days	1.9 %	ASTM D570

Mechanical	Typical Value Unit	Test method
Tensile Modulus	2690 MPa	ASTM D638
Tensile Strength	88.9 MPa	ASTM D638
Tensile Elongation (Yield)	6.5 %	ASTM D638
Flexural Modulus	2620 MPa	ASTM D790
Flexural Strength	125 MPa	ASTM D790

Impact	Typical Value Unit	Test method
Notched Izod Impact	53 J/m	ASTM D256

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Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Annealed	200	С°	
CLTE - Flow	5.2E-5	cm/cm/°C	ASTM D696
Electrical	Typical Value	Unit	Test method
Volume Resistivity	1.7E+15	ohms∙cm	ASTM D257
Dielectric Strength	15	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	3.51		
1 kHz	3.50		
1 MHz	3.54		
Dissipation Factor		~	ASTM D150
60 Hz	1.7E-3		
1 kHz	2.2E-3		
1 MHz	5.6E-3		-
Flammability	Typical Value	Unit	Test method
Flame Rating <sup>1</sup> (0.75 mm, ALL)	V-0	5	UL 94
Injection	Typical Value	Unit	F
Drying Temperature	177	°C	
Drying Time	2.5	hr	
Processing (Melt) Temp	343 to 385	°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.

<sup>1</sup> These flammability ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

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