

# Veradel® 3200

Polyethersulfone  
Solvay Specialty Polymers

Message:

Veradel® 3200 polyethersulfone (PESU) is a low melt flow, transparent grade that 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® 3200 is FDA compliant and is therefore approved for direct food contact.

Three other grades are available: Veradel® 3300, a medium melt flow grade suggested for general purpose injection molding; Veradel® 3400, a high melt flow grade designed for easy molding of parts with thin walls or long flow lengths; and Veradel® 3600, a very high melt flow grade suggested for compounding, especially of glass or carbon fiber reinforced compounds.

This grade was formerly marketed as Gafone™ PESU

General Information	
UL YellowCard	E36098-100168881
Features	Acid Resistant
	Flame Retardant
	Food Contact Acceptable
	General Purpose
	Good Adhesion
	Good Chemical Resistance
	Good Creep Resistance
	Good Dimensional Stability
	Good Thermal Stability
	Good Toughness
	High Heat Resistance
	High Tensile Strength
	Hydrolysis Resistant
	Medium Flow
	Medium Molecular Weight
	Medium Rigidity
Uses	Adhesives
	Coating Applications
	Compounding
	Film
Agency Ratings	FDA Food Contact, Unspecified Rating
RoHS Compliance	Contact Manufacturer
Appearance	Transparent - Slight Yellow
Forms	Powder
Processing Method	Compounding

Extrusion  
Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.37	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (380°C/2.16 kg)	20	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	Nominal 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	Nominal Value	Unit	Test Method
Notched Izod Impact	53	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Annealed)	200	°C	ASTM D648
CLTE - Flow	5.2E-5	cm/cm/°C	ASTM D696
Electrical	Nominal 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	Nominal Value	Unit	Test Method
Flame Rating <sup>1</sup> (1.50 mm)	V-0		UL 94
Injection	Nominal Value	Unit	
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		
Extrusion	Nominal Value	Unit	

Drying Temperature	177	°C
Drying Time	2.5	hr
Cylinder Zone 1 Temp.	335 to 391	°C
Cylinder Zone 2 Temp.	335 to 391	°C
Cylinder Zone 3 Temp.	335 to 391	°C
Cylinder Zone 4 Temp.	335 to 391	°C
Cylinder Zone 5 Temp.	335 to 391	°C
Adapter Temperature	327 to 371	°C
Melt Temperature	343 to 391	°C
Die Temperature	327 to 371	°C

#### NOTE

- 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

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