# Veradel® AG-320

### Polyethersulfone

Solvay Specialty Polymers

#### Message:

Veradel ® AG-320 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.

This grade was formerly marketed as Radel® A PESU Natural: Veradel® AG-320 NT

General Information	
UL YellowCard	E36098-101640605
Filler / Reinforcement	Glass Fiber,20% Filler by Weight
Features	Acid Resistant
	Flame Retardant
	Food Contact Acceptable
	Good Adhesion
	Good Chemical Resistance
	Good Creep Resistance
	Good Dimensional Stability
	Good Strength
	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 51 3		
RoHS Compliance	RoHS Compliant		
Appearance	Colors Available		
	Natural Color		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.51	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (343°C/2.16			
kg)	6.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40	%	ASTM D955
Water Absorption (24 hr)	0.45	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	5690	MPa	ASTM D638
Tensile Strength (Yield)	109	MPa	ASTM D638
Tensile Elongation (Break)	3.2	%	ASTM D638
Flexural Modulus	6550	MPa	ASTM D790
Flexural Strength	162	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	59	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.18 mm)	214	°C	ASTM D648
CLTE - Flow (3.18 mm)	3.1E-5	cm/cm/°C	ASTM D696
Electrical	Nominal 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	3.84		
1 kHz	3.84		
1 MHz	3.88		
Dissipation Factor			ASTM D150
60 Hz	1.5E-3		
1 kHz	1.8E-3		
1 MHz	8.1E-3		
Flammability	Nominal Value	Unit	Test Method
Flame Rating <sup>1</sup> (0.787 mm)	V-0		UL 94
Injection	Nominal 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	℃
Injection Rate	Fast	
Back Pressure	0.345 to 0.689	MPa
Screw Compression Ratio	2.0:1.0	
NOTE		
	These flammability ratings are not intended to reflect hazards presented by these or any other materials under actual fire	

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#### Recommended distributors for this material

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