

# Veradel® 3600

Polyethersulfone  
Solvay Specialty Polymers

Message:

Veradel® PESU was formerly marketed as Gafone™ PESU

Veradel® 3600 polyethersulfone (PESU) is a very high 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® 3600 is suggested for compounding, especially of glass or carbon fiber reinforced compounds. It is FDA compliant and is therefore approved for direct food contact.

Three other grades are available: Veradel® 3200, a low melt flow grade that can be processed by extrusion or injection molding and Veradel® 3300, a medium melt flow grade suggested for general purpose injection molding and Veradel® 3400, a high melt flow grade designed for easy molding of parts with thin walls or long flow lengths.

General Information			
UL YellowCard	E36098-100168885		
Features	Acid Resistant		
	Flame Retardant		
	Good Adhesion		
	Good Chemical Resistance		
	Good Creep Resistance		
	Good Dimensional Stability		
	Good Thermal Stability		
	Good Toughness		
	High Flow		
	High Heat Resistance		
	High Tensile Strength		
	Hydrolysis Resistant		
	Low Molecular Weight		
	Medium Rigidity		
Uses	Compounding		
RoHS Compliance	RoHS Compliant		
Appearance	Transparent - Slight Yellow		
Forms	Pellets		
Processing Method	Compounding		
	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.37	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (380°C/2.16 kg)	75	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
<b>Mechanical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
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
<b>Impact</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Notched Izod Impact	53	J/m	ASTM D256
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (1.8 MPa, Unannealed, Injection Molded)	200	°C	ASTM D648
CLTE - Flow	5.2E-5	cm/cm/°C	ASTM D696
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
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		
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating <sup>1</sup> (1.50 mm)	V-0		UL 94
<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>	
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	2.2:1.0		
<b>Extrusion</b>	<b>Nominal Value</b>	<b>Unit</b>	
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

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

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