

Solvay Specialty Polymers Veradel® 3500 Polyethersulfone (PESU) (Unverified Data**)

Category : Polymer , Thermoplastic , Polyethersulfone (PES)

Material Notes:

Veradel polyethersulfone (PESU) is transparent 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 3600 is a very high melt flow grade suggested for compounding, especially of glass or carbon fiber reinforced compounds. Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Veradel-3500-Polyethersulfone-PESU-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.37 g/cc	1.37 g/cc	ASTM D792
Water Absorption	1.9 %	1.9 %	30 days; ASTM D570
	0.50 %	0.50 %	ASTM D570
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.0060 cm/cm	0.0060 in/in	ASTM D955
Melt Flow	58 g/10 min	58 g/10 min	ASTM D1238
	@Load 2.16 kg, Temperature 380 °C	@Load 4.76 lb, Temperature 716 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength	88.9 MPa	12900 psi	ASTM D638
Elongation at Yield	6.5 %	6.5 %	ASTM D638
Tensile Modulus	2.69 GPa	390 ksi	ASTM D638
Flexural Strength	125 MPa	18100 psi	ASTM D790
Flexural Modulus	2.62 GPa	380 ksi	ASTM D790
Izod Impact, Notched	0.530 J/cm	0.993 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	52.0 µm/m-°C	28.9 µin/in-°F	ASTM D696
Deflection Temperature at 1.8 MPa (264 psi)	200 °C	392 °F	Unannealed; Injection Molded; ASTM D648
	V-0	V-0	

Flammability UL 94 Thermal Properties	Metric @ Thickness 1.50 mm	English @ Thickness 0.0591 in	UL 94 Comments
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Optical Properties	Metric	English	Comments
Transmission, Visible	90 %	90 %	transparent; thickness not quantified

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.70e+15 ohm-cm	1.70e+15 ohm-cm	ASTM D257
Dielectric Constant	3.5	3.5	ASTM D150
	@Frequency 1000 Hz	@Frequency 1000 Hz	
	3.51	3.51	
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	ASTM D150
Dielectric Strength	3.54	3.54	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	15.0 kV/mm	381 kV/in	
Dissipation Factor	0.0017	0.0017	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
	0.0022	0.0022	
	@Frequency 1000 Hz	@Frequency 1000 Hz	ASTM D150
	0.0056	0.0056	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	

Processing Properties	Metric	English	Comments
Zone 1	335 - 391 °C	635 - 736 °F	
Zone 2	335 - 391 °C	635 - 736 °F	
Zone 3	335 - 391 °C	635 - 736 °F	
Zone 4	335 - 391 °C	635 - 736 °F	
Zone 5	335 - 391 °C	635 - 736 °F	
Adapter Temperature	327 - 371 °C	621 - 700 °F	
Die Temperature	327 - 371 °C	621 - 700 °F	
Melt Temperature	343 - 385 °C	649 - 725 °F	

Processing Properties	Metric ^{91 °C}	English ^{186 °F}	Comments
Mold Temperature	149 - 163 °C	300 - 325 °F	
Drying Temperature	177 °C	351 °F	
	177 °C	351 °F	
Dry Time	2.50 hour	2.50 hour	
	2.50 hour	2.50 hour	

Descriptive Properties	Value	Comments
Agency Ratings	NSF 61	Tested at 82 °C (180 °F) (Commercial Hot)
Appearance	Transparent - Slight Yellow	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
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	
	Medium Molecular Weight	

Descriptive Properties	Medium Rigidity Value	Comments
Forms	Pellets	
Generic	PESU	
Injection Rate	Fast	
Processing Method	Compounding	
	Injection Molding	
RoHS Compliance	RoHS Compliant	
Screw Compression Ratio	2.2:1.0	
Uses	Compounding	

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