

## Solvay Specialty Polymers Veradel® 3600RP Polyethersulfone (PESU) (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Polyethersulfone (PES)

### Material Notes:

Veradel® 3600RP hydroxyl-functionalized polyethersulfone (r-PESU) is an amorphous, high-temperature sulfone polymer featuring reactive end groups to enhance solubility for dissolving or dispersing into solutions and to improve adhesion to substrates when used as a coating. Veradel 3600RP r-PESU offers excellent toughness and outstanding hydrolytic resistance. It resists attack from steam, boiling water and mineral acids. Cast films or coatings of r-PESU are transparent and have additional desirable properties, including long term thermal stability, excellent metal adhesion and formability and inherent flame resistance. Veradel r-PESU polymers are available in two molecular weight regimes. Veradel® 3000RP is a high molecular weight sulfone polymer with a relatively low level of functionality while Veradel 3600RP has a lower molecular weight sulfone polymer (approximately half the molecular weight of the Veradel 3000RP) with roughly 3-5 times higher level of functionality. The differences in molecular weight results in highly varied levels of viscosity, when measured under similar conditions. Typical applications include high-temperature coating formulations and specialty adhesives. All Veradel r-PESU polymers are produced at Solvay's state-of-the-art, world-scale facility in Panoli, India under ISO 9001:2000 and ISO 14001:2004 certified quality management systems. Information provided by Solvay Specialty Polymers.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Solvay-Specialty-Polymers-Veradel-3600RP-Polyethersulfone-PESU-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Veradel-3600RP-Polyethersulfone-PESU-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Moisture Absorption at Equilibrium	1.5 %	1.5 %	Measured at time of packing; Internal Method
Particle Size	250 µm	250 µm	D50 Sieve measurement; Internal Method
Viscosity	80 cP	80 cP	35% solution in DMAc (measured at 35% solids); Internal Method
	@Temperature 40.0 °C	@Temperature 104 °F	
	560 cP	560 cP	35% solution in DMAc (measured at 35% solids); Internal Method
	@Temperature 40.0 °C	@Temperature 104 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength	90.0 MPa	13100 psi	ASTM D638
Elongation at Yield	6.5 %	6.5 %	ASTM D638
Tensile Modulus	2.70 GPa	392 ksi	ASTM D638
Flexural Strength	2.60 MPa	377 psi	ASTM D790
Flexural Modulus	2.60 GPa	377 ksi	ASTM D790
Izod Impact, Notched	0.530 J/cm	0.993 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
Glass Transition Temp, Tg	220 °C	428 °F	DSC

Optical Properties	Metric	English	Comments
Transmission, Visible	90 %	90 %	transparent; thickness not quantified

Chemical Properties	Metric	English	Comments
Carboxyl End Groups	170 meq/kg	170 meq/kg	Titration; Internal Method

Descriptive Properties	Value	Comments
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Agency Ratings	NSF 51	Maximum Temperature of Use: 124°C (356°F)
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Appearance	Transparent - Slight Yellow
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Availability	Africa & Middle East
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	Asia Pacific
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	Europe
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	North America
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	South America
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Features	Acid Resistant
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	Flame Retardant
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	Good Adhesion
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	Good Chemical Resistance
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	Good Creep Resistance
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	Good Dimensional Stability
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	Good Thermal Stability
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	Good Toughness
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	High Flow
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	High Heat Resistance
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	High Tensile Strength
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	Hydrolysis Resistant
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	Low Molecular Weight
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Descriptive Properties	Value	Comments
	Medium Rigidity	
Forms	Granules	
	Powder	
Generic	PESU	
Processing Method	Coating	
	Solution Processing	
	Spraying	
Residual Solvent (%)	1.5	Gas Chromatography
Uses	Adhesives	
	Binder	
	Coating Applications	

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China