

## Solvay Specialty Polymers Veradel® 3000RP Polyethersulfone (PESU) (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Polyethersulfone (PES)

### Material Notes:

Veradel® 3000RP hydroxyl-functionalized polyethersulfones (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 3000RP 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-3000RP-Polyethersulfone-PESU-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Veradel-3000RP-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	700 cP @Temperature 40.0 °C	700 cP @Temperature 104 °F	25% solution in DMAc (measured at 25% solids); Internal Method
	5000 cP @Temperature 40.0 °C	5000 cP @Temperature 104 °F	35% solution in DMAc (measured at 25% solids); Internal Method

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	50 meq/kg	50 meq/kg	Titration; Internal Method

Descriptive Properties	Value	Comments
Appearance	Transparent - Slight Yellow	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Features	Acid Resistant	
	Flame Retardant	
	Food Contact Acceptable	
	Good Adhesion	
	Good Chemical Resistance	
	Good Creep Resistance	
	Good Dimensional Stability	
	Good Thermal Stability	
	Good Toughness	
	High Heat Resistance	
	High Molecular Weight	
	High Tensile Strength	
	Hydrolysis Resistant	
	Low Flow	

Descriptive Properties	Value Medium Rigidity	Comments
Forms	Granules	
	Powder	
Generic	PESU	
Processing Method	Cast Film	
	Coating	
	Solution Processing	
	Spraying	
Residual Solvent (%)	1.5	Gas Chromatography
Uses	Adhesives	
	Cast Film	
	Coating Applications	

## Contact Songhan Plastic Technology Co.,Ltd.

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