Virantage® VW-10300 P, FP & SFP

polyethersulfone

Virantage® VW-10300 polyethersulfone (PESU) is a non-functionalized, high-temperature sulfone polymer powder. Three grades are offered: Virantage® VW-10300P, Virantage® VW-10300FP, and Virantage® VW-10300SFP providing three particle sizes to meet formulators' specific needs. Their inherent toughness imparts damage tolerance to thermoset composites. Virantage® PESU polymers also offer superior thermal and hydrolytic stability that deliver best-in-class hot-wet performance.

These amorphous thermoplastics may be used to toughen a variety of advanced thermoset composites used to produce high-performance aerospace components. Virantage® PESU tougheners have been used successfully in a variety of thermosetting resin systems including epoxies, phenolics and BMIs.

All Virantage® 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.

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General		
Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Features	• Amorphous • Good Thermal Stability • Good Toughness • High Heat Resistance	• Hydrolytically Stable • Medium Molecular Weight • Medium-high Viscosity
Uses	• Aerospace Applications	
RoHS Compliance	• Contact Manufacturer	
Forms	• Powder	
Processing Method	• Compounding	

Physical	Typical Value	Unit	Test method
Solution Viscosity [1]	800	mPa·s	Internal Method
Moisture - Measured at time of packaging [2]	1.0	%	Internal Method
Particle Size [3]			
VW-10300FP	63.0	µm	
VW-10300P	500	µm	
VW-10300SFP	45.0	µm	
Residual Solvent - Measured by Gas Chromatography	0.20	%	Internal Method

Thermal	Typical Value	Unit	Test method
Glass Transition Temperature	220	°C	DSC

Notes

Typical properties: these are not to be construed as specifications.

[1] 25% solution in DMAc at 40°C

[2] Virantage® PESU is hygroscopic and may absorb moisture in storage.
Dry no higher than 130°C for a minimum of 3 hours if needed.

[3] Typical Particle Size ~D90
Particle sizes by sieve measurement

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