

Solvay Specialty Polymers Radel® R-7300 Polyphenylsulfone (PPSU)

Category : Polymer , Thermoplastic , Polyphenylsulfone (PPSU)

Material Notes:

Radel® R-7300 (for light colors) and R-7400 (for darker colors) polyphenylsulfone resins were developed specifically for aircraft interior applications, and through the use of a proprietary flame retardant package, offer low heat release, low smoke generation, and low toxic gas emissions. These resins comply with the FAA regulation 14CFR Part 25.853 Appendix F. In addition, they have excellent impact resistance and ESCR when exposed to fluids typically used by the aerospace industry, reducing the need for annealing or protective films. Features: Detergent Resistant; Flame Retardant; Good Chemical Resistance; Good Processing Stability; Good Toughness; High Flow; Low Smoke Emission; Low Toxicity Uses: Aerospace Applications; Aircraft Applications; Aircraft Interiors Additional Properties: OSU Peak Heat Release Rate - FAR 25.853(d) < 55.0 kW/m²; OSU Total Heat Release - FAR 25.853(d) < 20.0 kW-min/m²; Smoke Density - ASTM F814 < 5.0 Ds; Smoke Density - ASTM F814 1.0 Ds Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Radel-R-7300-Polyphenylsulfone-PPSU.php

Physical Properties	Metric	English	Comments
Density	1.36 g/cc	0.0491 lb/in ³	ASTM D792
Water Absorption	0.30 % @Time 86400 sec	0.30 % @Time 24.0 hour	ISO 62
Melt Flow	16 g/10 min @Load 2.16 kg, Temperature 380 °C	16 g/10 min @Load 4.76 lb, Temperature 716 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength	75.8 MPa	11000 psi	ASTM D638
Elongation at Break	40 %	40 %	ASTM D638
Tensile Modulus	2.79 GPa	405 ksi	ASTM D638
Flexural Strength	110 MPa	16000 psi	ASTM D790
Flexural Modulus	2.76 GPa	400 ksi	ASTM D790
Izod Impact, Notched	0.800 J/cm	1.50 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	182 °C	360 °F	Unannealed; ASTM D648

Processing Properties	Metric	English	Comments
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Rear Barrel Temperature Processing Properties	354 - 371 °C Metric	669 - 700 °F English	Comments
Middle Barrel Temperature	360 - 377 °C	680 - 711 °F	
Front Barrel Temperature	366 - 382 °C	691 - 720 °F	
Nozzle Temperature	360 - 377 °C	680 - 711 °F	
Melt Temperature	366 - 388 °C	691 - 730 °F	
Mold Temperature	107 - 163 °C	225 - 325 °F	
Drying Temperature	149 °C @Time 14400 sec	300 °F @Time 4.00 hour	

Descriptive Properties	Value	Comments
Agency Ratings	FAA FAR 25.853a; FAA FAR 25.853d; OSU 55/55	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	Latin America	
	North America	
Color	Colors Available	
Form	Pellets	
Injection Rate	Fast	
Processing Technique	Injection Molding	
RoHS Compliance	RoHS Compliant	
Screw Compression Ratio	2.0:1.0 to 3.0:1.0	

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