Solvay Specialty Polymers Ajediumâ, ¢ Films -- Radel® R-5100 NT15 Polyphenylsulfone (PPSU)

Category : Polymer , Film , Thermoplastic , Polyphenylsulfone (PPSU)

Material Notes:

Radel® polyphenylsulfone is an amorphous thermoplastic material that offers exceptional hydrolytic stability, and toughness superior to other commercially available, high-temperature films. PPSU films have high deflection temperatures and outstanding resistance to environmental stress cracking. The polymer is inherently flame retardant. The excellent thermal stability makes films suitable for applications where very low shrink at high temperatures are needed. PPSU films also have good electrical properties. Features: Flame Retardant; Good Electrical Properties; Good Thermal Stability; Good Toughness; High ESCR (Stress Crack Resist.); Hydrolytically StableUses: Aerospace Applications; Aircraft Applications; Automotive Applications; Batteries; Electrical/Electronic Applications; Food Service Applications; Medical/Healthcare ApplicationsAdditional Properties: Area Factor - 149 ft²/lb/millnformation provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Ajedium-Films-Radel-R-5100-NT15-Polyphenylsulfone-PPSU.php

Physical Properties	Metric	English	Comments
Density	1.30 g/cc	0.0470 lb/in³	ASTM D792
Water Absorption	0.37 %	0.37 %	150.62
	@Time 86400 sec	@Time 24.0 hour	130.02
Thickness	25.0 microns	0.984 mil	As Tested

Mechanical Properties	Metric	English	Comments
Film Tensile Strength at Yield, MD	68.0 MPa	9860 psi	ASTM D882
Film Tensile Strength at Yield, TD	59.0 MPa	8560 psi	ASTM D882
Film Elongation at Break, MD	140 %	140 %	ASTM D882
Film Elongation at Break, TD	100 %	100 %	ASTM D882
Film Elongation at Yield, MD	9.2 %	9.2 %	ASTM D882
Film Elongation at Yield, TD	6.8 %	6.8 %	ASTM D882
Secant Modulus, MD	1.59 GPa	231 ksi	ASTM D882
Secant Modulus, TD	1.98 GPa	287 ksi	ASTM D882
Dart Drop Test	540 g	1.19 lb	ASTM D1709
Film Tensile Strength at Break, MD	92.0 MPa	13300 psi	ASTM D882
Film Tensile Strength at Break, TD	70.0 MPa	10200 psi	ASTM D882

SONGHAN Plastic Technology Co., Ltd.

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Mechanical Properties Thermal Properties	Metric Metric	English English	Comments Comments	
CTE, linear, Parallel to Flow	56.0 µm/m-°C	31.1 µin/in-°F		
	@Thickness 3.18 mm	@Thickness 0.125 in		
Deflection Temperature at 1.8 MPa (264 psi)	207 °C	405 °F	Unannealed; ASTM D648	
	@Thickness 3.20 mm	@Thickness 0.126 in		
Glass Transition Temp, Tg	220 °C	428 °F	ASTM E1356	
Oxygen Index	38 %	38 %	ASTM D2863	

Electrical Properties	Metric	English	Comments
Volume Resistivity	9.00e+15 ohm-cm	9.00e+15 ohm-cm	ASTM D257
Dielectric Constant	1.38	1.38	ASTM D150
Dielectric Strength	190 kV/mm	4830 kV/in	ASTM D149
	@Thickness 0.0250 mm	@Thickness 0.000984 in	

Descriptive Properties	Value	Comments
Availability	Asia Pacific	
	Europe	
	Latin America	
	North America	
Color	Opaque	
RoHS Compliance	RoHS Compliant	

Contact Songhan Plastic Technology Co.,Ltd.

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