

Solvay Specialty Polymers Udel® P-3700 HC Polysulfone (PSU)

Category : Polymer , Thermoplastic , Polysulfone (PSU)

Material Notes:

Udel® P-3700 HC is a high-clarity grade of polysulfone (PSU) that is nearly water-white in color. This grade was designed to eliminate the yellow cast and provide design flexibility and improved aesthetics for applications where a yellow cast is undesirable. Features: Acid Resistant; Alcohol Resistant; Alkali Resistant; Good Chemical Resistance; Good Toughness; High Clarity; High Heat Resistance; Hydrocarbon Resistant; Hydrolytically Stable Uses: Appliance Components; Appliances; Decorative Parts; Electrical/Electronic Applications; Food Service Applications; Medical/Healthcare Applications; Optical Applications; Safety Equipment Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Udel-P-3700-HC-Polysulfone-PSU.php

Physical Properties	Metric	English	Comments
Density	1.24 g/cc	0.0448 lb/in ³	ASTM D792
Water Absorption	0.30 % @Time 86400 sec	0.30 % @Time 24.0 hour	ISO 62
Linear Mold Shrinkage, Flow	0.0070 cm/cm @Thickness 3.18 mm	0.0070 in/in @Thickness 0.125 in	
Melt Flow	18 g/10 min @Load 2.16 kg, Temperature 343 °C	18 g/10 min @Load 4.76 lb, Temperature 649 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength	75.8 MPa	11000 psi	ASTM D638
Elongation at Break	45 %	45 %	ASTM D638
Elongation at Yield	5.8 %	5.8 %	ASTM D638
Tensile Modulus	2.69 GPa	390 ksi	ASTM D638
Flexural Yield Strength	117 MPa	17000 psi	ASTM D790
Flexural Modulus	2.76 GPa	400 ksi	ASTM D790
Izod Impact, Notched	0.530 J/cm @Thickness 3.18 mm	0.993 ft-lb/in @Thickness 0.125 in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	56.0 µm/m-°C	31.1 µin/in-°F	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	@Thickness 3.20 mm	@Thickness 0.126 in	Annealed, ASTM D648
Glass Transition Temp, Tg	185 Â°C	365 Â°F	ASTM E1356

Optical Properties	Metric	English	Comments
Refractive Index	1.635	1.635	ASTM D542
Haze	2.0 % @Thickness 2.54 mm	2.0 % @Thickness 0.100 in	ASTM D1003
Yellow Index	2.0 % @Thickness 2.54 mm	2.0 % @Thickness 0.100 in	ASTM D1925
Transmission, Visible	77 - 83 % @Thickness 2.54 mm	77 - 83 % @Thickness 0.100 in	ASTM D1003

Compliance Properties	Metric	English	Comments
FDA	Yes	Yes	

Processing Properties	Metric	English	Comments
Processing Temperature	149 Â°C	300 Â°F	Hopper
Melt Temperature	329 - 385 Â°C	624 - 725 Â°F	
Mold Temperature	121 - 163 Â°C	250 - 325 Â°F	
Drying Temperature	149 Â°C @Time <=12600 sec	300 Â°F @Time <=3.50 hour	
Shot Size	50 - 75 %	50 - 75 %	

Descriptive Properties	Value	Comments
Availability	Asia Pacific	
	Europe	
	Latin America	
	North America	
Color	Colorless	
Form	Pellets	

Processing Technique Descriptive Properties	Extrusion; Injection Molding Value	Comments
RoHS Compliance	RoHS Compliant	

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