

Solvay Specialty Polymers Udel® P-1750 MR Polysulfone (PSU)

Category : Polymer , Thermoplastic , Polysulfone (PSU)

Material Notes:

Udel® P-1750 MR is a lower color grade of polysulfone that contains a mold release which aids part ejection when parts with low draft are injection molded. Polysulfones have long been known for transparency and clarity, but have been somewhat limited by a slight yellow cast which has been typical of the material. These grades were designed to eliminate the yellow cast and provide improved aesthetics for applications where a yellow cast is undesirable. Features: Acid Resistant; Alcohol Resistant; Alkali Resistant; Good Chemical Resistance; Good Toughness; High Heat Resistance; Hydrocarbon Resistant; Hydrolytically Stable Uses: Appliance Components; Appliances; Automotive Electronics; Batteries; Business Equipment; Electrical Parts; Electrical/Electronic Applications; Food Service Applications; Industrial Parts; Microwave Cookware; Piping; Plumbing Parts; Valves/Valve Parts Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Udel-P-1750-MR-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	0.0070 in/in	
Melt Flow	6.5 g/10 min @Load 2.16 kg, Temperature 343 °C	6.5 g/10 min @Load 4.76 lb, Temperature 649 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength	70.3 MPa	10200 psi	ASTM D638
Elongation at Break	50 - 100 %	50 - 100 %	ASTM D638
Tensile Modulus	2.48 GPa	360 ksi	ASTM D638
Flexural Strength	106 MPa	15400 psi	ASTM D790
Flexural Modulus	2.69 GPa	390 ksi	ASTM D790
Izod Impact, Notched	0.690 J/cm	1.29 ft-lb/in	ASTM D256
Tensile Impact Strength	420 kJ/m ²	200 ft-lb/in ²	ASTM D1822

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	56.0 µm/m-°C	31.1 µin/in-°F	
Deflection Temperature at 1.8 MPa			

(264 psi) Thermal Properties	174 Â°C Metric	345 Â°F English	Unannealed; ASTM D648 Comments
Electrical Properties	Metric	English	Comments
Volume Resistivity	3.00e+16 ohm-cm	3.00e+16 ohm-cm	ASTM D257
Dielectric Constant	2.9	2.9	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
	3.02	3.02	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.04	3.04	ASTM D150
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Dielectric Strength	17.0 kV/mm	432 kV/in	ASTM D149
Dissipation Factor	0.0010	0.0010	ASTM D150
	@Frequency 1000 Hz	@Frequency 1000 Hz	
	0.0060	0.0060	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.0070	0.0070	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	

Processing Properties	Metric	English	Comments
Melt Temperature	329 - 385 Â°C	624 - 725 Â°F	
Mold Temperature	121 - 163 Â°C	250 - 325 Â°F	
Drying Temperature	135 - 163 Â°C	275 - 325 Â°F	
	@Time 12600 sec	@Time 3.50 hour	
Shot Size	50 - 75 %	50 - 75 %	

Descriptive Properties	Value	Comments
Availability	Asia Pacific	
	Europe	
	Latin America	
	North America	
Color	Clear/Transparent	

Descriptive Properties Form	Value Pellets	Comments
Processing Technique	Extrusion; Injection Molding	

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