

Solvay Specialty Polymers Udel® P-1710 Polysulfone (PSU) (Unverified Data**)

Category : Polymer , Thermoplastic , Polysulfone (PSU)

Material Notes:

Udel P-1710 polysulfone (PSU) is a tough, rigid, high-strength thermoplastic that is suitable for continuous use up to 300°F (149°C). The resin is resistant to oxidation and hydrolysis and withstands prolonged exposure to high temperatures and repeated sterilization. Udel P-1710 polysulfone is highly resistant to mineral acids, alkali and salt solutions. Its resistance to detergents and hydrocarbon oils is good, but it will be attacked by polar solvents such as ketones, chlorinated hydrocarbons and aromatic hydrocarbons. The resin is also highly resistant to degradation by gamma or electron beam radiation. Electrical properties are stable over a wide temperature range and after immersion in water or exposure to high humidity. - Natural: Udel P-1710 NT 15
Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Udel-P-1710-Polysulfone-PSU-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.24 g/cc	1.24 g/cc	ASTM D792
Water Absorption	0.30 %	0.30 %	ASTM D570
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.0070 cm/cm	0.0070 in/in	ASTM D955
Melt Flow	7.0 g/10 min	7.0 g/10 min	ASTM D1238
	@Load 2.16 kg, Temperature 343 °C	@Load 4.76 lb, Temperature 649 °F	

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	ASTM D696
Deflection Temperature at 1.8 MPa			

(264 psi) Thermal Properties	174 °C Metric	345 °F English	Unannealed; ASTM D648 Comments
Electrical Properties	Metric	English	Comments
Volume Resistivity	5.00e+16 ohm-cm	5.00e+16 ohm-cm	ASTM D257
Dielectric Constant	3.1	3.1	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.14	3.14	
Dielectric Strength	@Frequency 1000 Hz	@Frequency 1000 Hz	ASTM D150
	3.15	3.15	ASTM D150
Dissipation Factor	@Frequency 60.0 Hz	@Frequency 60.0 Hz	ASTM D150
	0.0011	0.0011	ASTM D150
Dielectric Strength	17.0 kV/mm	432 kV/in	ASTM D149
	0.0013	0.0013	ASTM D150
Dissipation Factor	@Frequency 1000 Hz	@Frequency 1000 Hz	ASTM D150
	0.0050	0.0050	ASTM D150
Dielectric Strength	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	ASTM D150
	0.0011	0.0011	ASTM D150

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

Descriptive Properties	Value	Comments
Agency Ratings	NSF 61	Tested at 82 °C (180 °F) (Commercial Hot)
Appearance	Colors Available	
	Opaque	
Availability	Asia Pacific	

Descriptive Properties	Europe Value	Comments
	North America	
	South America	
Features	Acid Resistant	
	Alcohol Resistant	
	Alkali Resistant	
	Good Chemical Resistance	
	Good Dimensional Stability	
	Good Toughness	
	High Heat Resistance	
	Hydrocarbon Resistant	
	Hydrolytically Stable	
Forms	Pellets	
Generic	PSU	
Processing Method	Extrusion	
	Film Extrusion	
	Injection Molding	
	Pipe Extrusion	
	Profile Extrusion	
	Sheet Extrusion	
RoHS Compliance	RoHS Compliant	
Uses	Appliance Components	
	Appliances	
	Electrical Parts	
	Electrical/Electronic Applications	
	Fittings	
	Food Service Applications	
	Industrial Parts	

Descriptive Properties	Value	Comments
	Microwave Cookware	
	Piping	
	Plumbing Parts	
	Valves/Valve Parts	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China