

## Solvay Specialty Polymers Udel® P-1835 Polysulfone (PSU) (discontinued \*\*)

Category : Polymer , Thermoplastic , Polysulfone (PSU)

### Material Notes:

Udel P-1835 polysulfone is a powdered grade well suited for the fabrication of porous membranes. The membranes can be made into hollow fibers, tubes, plates, or spiral wound elements. They are used in a variety of filtration applications, such as treating potable or waste water, purifying pharmaceuticals, separating gases, and processing blood or dairy and food products. This tough, rigid, high-strength thermoplastic is suitable for continuous use up to 150°C. The resin is soluble in commercially available, water-miscible, dipolar, aprotic solvents, like dimethylacetamide (DMAC), dimethylformamide (DMF) and N-methyl pyrrolidone (NMP). Udel P-1835 offers membrane producers very good control of pore size and pore size distribution, high membrane strength and good film-forming properties. The resultant membranes have excellent hydrolytic stability and are compatible with pH's ranging from 2 to 13. They tolerate a variety of cleaning methods, including hydrochloric acid or sodium hydroxide. The resin has a Tg of 185°C indicating high thermal resistance. - Natural: Udel P-1835 NT 11 Features: Acid Resistant; Alcohol Resistant; Alkali Resistant; Good Chemical Resistance; Good Toughness; High Heat Resistance; Hydrocarbon Resistant; Hydrolytically Stable Uses: Availability: North America UDEL P-1835 polysulfones may be dried before preparing solutions. Pellets can be dried in a circulating hot air oven, by spreading the pellets on trays to a 1-2 inch depth and drying for 3.5 hours at 257 to 325°F (135 to 163°C). Information provided by Solvay Specialty Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Solvay-Specialty-Polymers-Udel-P-1835-Polysulfone-PSU-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Udel-P-1835-Polysulfone-PSU-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.24 g/cc	1.24 g/cc	ASTM D792
Water Absorption	0.30 %	0.30 %	24 hrs; ASTM D570
Linear Mold Shrinkage, Flow	0.0070 cm/cm	0.0070 in/in	ASTM D955
Melt Flow	3.0 - 5.0 g/10 min @Load 2.16 kg, Temperature 343 °C	3.0 - 5.0 g/10 min @Load 4.76 lb, Temperature 649 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	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/m²	200 ft-lb/in²	ASTM D1822

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	56.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	31.1 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM D696
Deflection Temperature at 1.8 MPa (264 psi)	174 $^{\circ}\text{C}$	345 $^{\circ}\text{F}$	Unannealed; ASTM D648

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	ASTM D150
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Dielectric Strength	3.15	3.15	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
Dissipation Factor	0.0011	0.0011	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
	0.0013	0.0013	ASTM D150
	@Frequency 1000 Hz	@Frequency 1000 Hz	
	0.0050	0.0050	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	

Descriptive Properties	Value	Comments
Appearance	Natural Color	
Forms	Powder	
Processing Method	Coating	
	Injection Molding	
	Solution Processing	
RoHS Compliance	Contact Manufacturer	

**Contact Songhan Plastic Technology Co.,Ltd.**

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