Udel® P-3700 HC

Polysulfone

Solvay Specialty Polymers

Message:

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.
Compared to Udel® P-1700, P-3700 HC has higher flow and a slightly greater tendency to stress crack in some aggressive environments.

General Information	
Features	Good chemical resistance alkali resistance Alcohol resistance Heat resistance, high acid resistance Hydrocarbon resistance Definition, high Good toughness Hydrolysis stability
Uses	Safety equipment Electrical/Electronic Applications Electrical appliances Optical applications Home appliance components Food service sector Medical/nursing supplies Decorative parts
Agency Ratings	FDA Food Exposure, Not Rated
RoHS Compliance	RoHS compliance
Appearance	Colorless
Forms	Particle
Processing Method	Extrusion Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.24	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (343°C/2.16 kg)	18	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.18 mm)	0.70	%	ASTM D955
Water Absorption (24 hr)	0.30	%	ASTM D570

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2690	MPa	ASTM D638
Tensile Strength	75.8	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	5.8	%	ASTM D638
Fracture	45	%	ASTM D638
Flexural Modulus	2760	MPa	ASTM D790
Flexural Strength (Yield)	117	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm)	53	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Annealed, 3.18 mm)	178	°C	ASTM D648
Glass Transition Temperature	185	°C	ASTM E1356
CLTE - Flow	5.6E-5	cm/cm/°C	ASTM D696
Optical	**Nominal Value**	**Unit**	**Test Method**
Refractive Index	1.635		ASTM D542
Transmittance (2540 µm)	77.0 - 83.0	%	ASTM D1003
Haze (2540 µm)	2.0	%	ASTM D1003
Yellowness Index (2.54 mm)	2.0	YI	ASTM D1925
Additional Information			
Tensile Elongation at Break, ASTM D638: 30 to 60 %			
Injection	**Nominal Value**	**Unit**	
Drying Temperature	149	°C	
Drying Time	3.0	hr	
Drying Time, Maximum	3.5	hr	
Suggested Shot Size	50 - 75	%	
Hopper Temperature	149	°C	
Processing (Melt) Temp	329 - 385	°C	
Mold Temperature	121 - 163	°C	

Recommended distributors for this material

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