ColorFast® PSU1000

Americhem - *Polysulfone*

General Information

Product Description			
PSU1000 is a semi-transparent injection molding grade of polysulfone (PSU) with good dimensional stability and chemical resistance, and high heat resistance. It is suitable for a wide range of applications.			
General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Excellent Colorability		
Uses	• Aerospace Applications • Connectors • Consumer Applications	• Engineering Parts • Industrial Applications • Industrial Parts	• Military/Defense Applications • Oil/Gas Applications • Outdoor Applications
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties [1]

Physical	**Nominal Value**	**Unit**	**Test Method**
Density / Specific Gravity	1.24		ASTM D792
Melt Mass-Flow Rate (MFR) (343°C/2.16 kg)	7.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	7.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.30	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Yield)	10200	psi	ASTM D638
Tensile Elongation [2] (Break)	50 to 100	%	ASTM D638
Flexural Modulus [2]	390000	psi	ASTM D790
Flexural Strength [2]	15000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F)	1.3	ft·lb/in	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	345	°F	ASTM D648

Processing Information

Injection	**Nominal Value**	**Unit**
Drying Temperature	275 to 325	°F
Drying Time	4.0 to 6.0	hr
Drying Time, Maximum	24	hr
Suggested Shot Size	50 to 75	%
Rear Temperature	600 to 625	°F
Middle Temperature	600 to 625	°F
Front Temperature	600 to 625	°F
Nozzle Temperature	600 to 625	°F
Processing (Melt) Temp	625 to 725	°F
Mold Temperature	250 to 325	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm
Vent Depth	1.0E-3 to 3.0E-3	in