Ultrason® S 2010 G6

BASF Corporation - Polysulfone

Tuesday, November 5, 2019

General Information

Product Description

Ultrason S 2010 G6 is a 30% glass reinforced, medium viscosity injection molding PSU grade with high rigidity and strength.

Applications

Typical applications include circuit braker parts, lamp holders, heat shields, impellers, and printer cartridges.

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• High Rigidity	• High Strength	• Medium Viscosity
Uses	• Electrical Parts	• Printer Parts	
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.46	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (360°C/10.0 kg)	30	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	0.46	%	
Flow	0.29	%	
Water Absorption (Saturation, 73°F)	0.60	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	1.29E+6	psi	ISO 527-2
Tensile Stress (Break, 73°F)	18100	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.2	%	ISO 527-2
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179
-22°F	4.0	ft·lb/in²	
73°F	4.0	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179
-22°F	21	ft·lb/in²	
73°F	19	ft·lb/in²	
Notched Izod Impact Strength			ISO 180
-22°F	4.0	ft·lb/in²	
73°F	4.0	ft·lb/in²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness	28000	psi	ISO 2039-1

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	365	°F	ISO 75-2/A
CLTE - Flow	1.1E-5	in/in/°F	
RTI Elec			UL 746
0.06 in	320	°F	
0.12 in	320	°F	
RTI Imp			UL 746
0.06 in	284	°F	
0.12 in	284	°F	
RTI Str			UL 746
0.06 in	320	°F	
0.12 in	320	°F	

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength	1100	V/mil	IEC 60243-1
Dielectric Constant			IEC 60250
100 Hz	3.70		
1 MHz	3.70		
Dissipation Factor			IEC 60250
100 Hz	1.0E-3		
1 MHz	6.0E-3		
Comparative Tracking Index	125	V	IEC 60112

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in	V-1		
0.12 in	V-0		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	266 to 302	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
Processing (Melt) Temp	662 to 734	°F
Mold Temperature	302 to 374	°F
Injection Pressure	508 to 1810	psi
Injection Rate	Fast	

Notes

[1] Typical properties: these are not to be construed as specifications.