Ultrason® S 6010

BASF Corporation - Polysulfone

Tuesday, November 5, 2019

General Information

Product Description

Ultrason S 6010 is a high molecular weight injection molding and extrusion grade with excellent chemical resistance (stress crack resistance) and good solubility in typical solvents (N-methylpyrrolidone, dimethlyacetamide, dicholormethane) used in the production of membranes or coatings.

Applications
Typical applications include sanitary and heating systems/parts and membranes.

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• Chemical Resistant	• Good ESCR (Stress Crack Resist.)	• High Molecular Weight
Uses	• Coating Applications	• Membranes	• Sanitary Products
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.23	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	0.77	%	
Flow	0.72	%	
Water Absorption (Saturation, 73°F)	0.80	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.30	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	370000	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	10900	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	5.7	%	ISO 527-2
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179
-22°F	3.1	ft·lb/in²	
73°F	2.9	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179
-22°F	No Break		
73°F	No Break		
Notched Izod Impact Strength			ISO 180
-22°F	3.1	ft·lb/in²	
73°F	2.9	ft·lb/in²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness	19600	psi	ISO 2039-1
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (264 psi, Unannealed)	351	°F	ISO 75-2/A

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Thermal	Nominal Value	Unit	Test Method
CLTE - Flow	2.9E-5	in/in/°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	940	V/mil	IEC 60243-1
Dielectric Constant			IEC 60250
100 Hz	3.50		
1 MHz	3.40		
Dissipation Factor			IEC 60250
100 Hz	1.1E-3		
1 MHz	7.1E-3		
Comparative Tracking Index	125	V	IEC 60112

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	644 to 734	°F
Mold Temperature	284 to 356	°F
Injection Pressure	508 to 1810	psi
Injection Rate	Fast	

Notes

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