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Ultrason® S 6010 Polysulfone (PSU)

BASF The Chemical Company

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. It conforms to FDA requirements of 21 CFR 177.1655.

Applications

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

PHYSICAL	ISO Test Method	Property Value
Density, g/cm³	1183	1.23
Mold Shrinkage, parallel, %	294-4	0.72
Mold Shrinkage, normal, %	294-4	0.77
Moisture, %	62	
(50% RH)		0.3
(Saturation)		0.8
RHEOLOGICAL	**ISO Test Method**	**Property Value**
Melt Volume Rate (360 °C/10 Kg), cc/10min.	1133	30
MECHANICAL	**ISO Test Method**	**Property Value**
Tensile Modulus, MPa	527	
23°C		2,600
Tensile stress at yield, MPa	527	
23°C		75
Tensile strain at yield, %	527	
23°C		5.7
IMPACT	**ISO Test Method**	**Property Value**
Izod Notched Impact, kJ/m²	180	
23°C		6

Charpy Notched, kJ/m²	179	
23°C		6
-30°C		6
Charpy Unnotched, kJ/m²	179	
23°C		N
-30°C		N
THERMAL	**ISO Test Method**	**Property Value**
HDT A, ° C	75	175
Coef. of Linear Thermal Expansion, Parallel, mm/mm °C		0.53 X10-4
ELECTRICAL	**ISO Test Method**	**Property Value**
Comparative Tracking Index	IEC 60112	125
Volume Resistivity	IEC 60093	>1E13
Surface Resistivity	IEC 60093	>1E14
Dielectric Constant (100 Hz)	IEC 60250	3.5
Dielectric Constant (1 MHz)	IEC 60250	3.4
Dissipation Factor (100 Hz)	IEC 60250	11
Dissipation Factor (1 MHz)	IEC 60250	71
Dielectric Strength, KV/mm	IEC 60243-1	37