



Ultrason® E 3010

BASF Corporation - Polyethersulfone

Tuesday, November 5, 2019

General Information

Product Description

Ultrason E 3010 is an unfilled, higher viscosity injection molding and extrusion PESU grade, tougher and with improved chemical resistance.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• Chemical Resistant	• Good Toughness	• High Viscosity
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	1.37	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (360°C/10.0 kg)	35	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	0.90	%	
Flow	0.85	%	
Water Absorption (Saturation, 73°F)	2.2	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.80	%	ISO 62

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	384000	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	12300	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	6.9	%	ISO 527-2

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F	3.8	ft·lb/in ²	
73°F	3.8	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179
-22°F	No Break		
73°F	No Break		
Notched Izod Impact Strength			ISO 180
-22°F	3.8	ft·lb/in ²	
73°F	3.8	ft·lb/in ²	

Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	22300	psi	ISO 2039-1

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	405	°F	ISO 75-2/A
CLTE - Flow	2.9E-5	in/in/°F	
RTI Elec			UL 746
0.06 in	356	°F	
0.12 in	356	°F	

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Thermal	Nominal Value	Unit	Test Method
RTI Imp			UL 746
0.06 in	356	°F	
0.12 in	356	°F	
RTI Str			UL 746
0.06 in	374	°F	
0.12 in	374	°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	860	V/mil	IEC 60243-1
Dielectric Constant			IEC 60250
100 Hz	3.90		
1 MHz	3.80		
Dissipation Factor			IEC 60250
100 Hz	1.7E-3		
1 MHz	0.014		
Comparative Tracking Index	125	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in	V-0		
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	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.