



Ultraform® N 2320 003 AT BK120

BASF Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

Ultraform N 2320 003 AT BK120 is a pigmented black, rapidly freezing general-purpose injection molding POM grade. It contains a mold release agent.

Typical applications include spring elements, clips, gas filler caps, gears wheels, small motor parts, curtain hooks and release buttons for safety belts

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Mold Release
Features	• Copolymer • General Purpose • Good Mold Release
Uses	• Caps • General Purpose • Gears • Springs
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.41	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	7.50	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	2.1	%	
Flow	2.1	%	
Water Absorption (Saturation, 73°F)	0.90	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.25	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	392000	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	9280	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	10	%	ISO 527-2
Nominal Tensile Strain at Break (73°F)	25	%	ISO 527-2
Tensile Creep Modulus (1000 hr)	203000	psi	ISO 899-1
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F	2.9	ft·lb/in ²	
73°F	3.1	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179
-22°F	90	ft·lb/in ²	
73°F	95	ft·lb/in ²	
Notched Izod Impact Strength			ISO 180
-22°F	2.6	ft·lb/in ²	
73°F	2.9	ft·lb/in ²	

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	203	°F	ISO 75-2/A
Melting Temperature (DSC)	331	°F	ISO 3146
CLTE - Flow	6.1E-5	in/in/°F	ISO 11359-2
RTI Elec			UL 746
0.030 in	221	°F	
0.06 in	221	°F	
0.12 in	221	°F	
RTI Imp			UL 746
0.06 in	194	°F	
0.12 in	194	°F	
RTI Str			UL 746
0.06 in	194	°F	
0.12 in	221	°F	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohms·cm	IEC 60093
Dielectric Constant (1 MHz)	3.80		IEC 60250
Dissipation Factor (1 MHz)	5.0E-3		IEC 60250
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.030 in		HB	
0.06 in		HB	
0.12 in		HB	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176 to 230	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.15	%
Processing (Melt) Temp	374 to 446	°F
Mold Temperature	140 to 248	°F
Injection Pressure	508 to 1020	psi

Notes

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