



Ultraform® N 2310 P Q600

BASF Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

Ultraform N 2310 P Q600 is a general-purpose injection molding POM grade containing special lubricant. Low frictional coefficient giving extremely low wear with otherwise unaltered mechanical properties.

Applications

Typical applications include spring elements, clips, gears and other applications requiring low friction and wear.

General

Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Lubricant		
Features	• Copolymer • General Purpose	• Low Friction • Lubricated	• Wear Resistant
Uses	• Gears	• General Purpose	• Springs
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• FMVSS 302		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.40		ASTM D792
Density	1.40	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	7.50	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (0.125 in)	0.020	in/in	
Molding Shrinkage			ISO 294-4
Across Flow	2.1	%	
Flow	2.1	%	
Water Absorption (Saturation)	0.80	%	ASTM D570
Water Absorption (Saturation, 73°F)	0.80	%	ISO 62
Water Absorption (Equilibrium, 50% RH)	0.20	%	ASTM D570
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	377000	psi	ISO 527-2
Tensile Strength (Yield, 73°F)	8850	psi	ASTM D638
Tensile Stress (Yield, 73°F)	8850	psi	ISO 527-2
Tensile Elongation (Yield, 73°F)	10	%	ASTM D638
Tensile Strain (Yield, 73°F)	10	%	ISO 527-2
Nominal Tensile Strain at Break (73°F)	30	%	ISO 527-2
Tensile Creep Modulus (1 hr)	276000	psi	ISO 899-1
Tensile Creep Modulus (1000 hr)	189000	psi	ISO 899-1
Flexural Modulus (73°F)	339000	psi	ASTM D790

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Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	2.6	ft·lb/in ²	ISO 179
Charpy Unnotched Impact Strength			ISO 179
-22°F	86	ft·lb/in ²	
73°F	95	ft·lb/in ²	
Notched Izod Impact			ASTM D256
-40°F	1.0	ft·lb/in	
73°F	1.2	ft·lb/in	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	85		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	309	°F	ASTM D648
Heat Deflection Temperature (66 psi, Unannealed)	203	°F	ISO 75-2/B
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	210	°F	
Heat Deflection Temperature (264 psi, Unannealed)	221	°F	ISO 75-2/A
Peak Melting Temperature	331	°F	ASTM D3418
Melting Temperature (DSC)	331	°F	ISO 3146
CLTE - Flow	3.3E-5	in/in/°F	ASTM E831
CLTE - Flow	6.1E-5	in/in/°F	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity (0.0591 in)	1.0E+12	ohms	ASTM D257
Surface Resistivity	1.0E+12	ohms	IEC 60093
Volume Resistivity (0.0591 in)	1.0E+14	ohms·cm	ASTM D257
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Electric Strength	1000	V/mil	IEC 60243-1
Dielectric Constant			IEC 60250
100 Hz	3.80		
1 MHz	3.80		
Dissipation Factor			IEC 60250
100 Hz	1.0E-3		
1 MHz	5.0E-3		
Comparative Tracking Index	600	V	IEC 60112

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.