

Ultraform® N 2640 Z4 UNC Q600

Acetal (POM) Copolymer

BASF Corporation

Message:

Ultraform N 2640 Z4 UNC Q600 is a high toughness, elastomer-modified injection molding POM grade.

Applications

Typical applications include toys components such as bicycle frames, automotive parts such as cladding elements and windshield wiper units, and clips, snap and fastening elements, and other components subject to impact stress.

General Information			
UL YellowCard	E36632-531685	E36632-531689	
Features	Copolymer		
	Good Toughness		
Uses	Automotive Exterior Parts		
	Fasteners		
	Toys		
Agency Ratings	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS Compliant		
Forms	Pellets		
Processing Method	Injection Molding		
Multi-Point Data	Isochronous Stress vs. Strain (ISO 11403-1)		
	Isothermal Stress vs. Strain (ISO 11403-1)		
	Secant Modulus vs. Strain (ISO 11403-1)		
	Shear Modulus vs. Temperature (ISO 11403-1)		
	Specific Heat vs. Temperature (ISO 11403-2)		
	Specific Volume vs Temperature (ISO 11403-2)		
	Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.35	g/cm³	ASTM D792, ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	5.50	cm³/10min	ISO 1133
Molding Shrinkage			
Flow : 3.18 mm	1.9	%	
Across Flow	1.8	%	ISO 294-4
Flow	1.8	%	ISO 294-4
Water Absorption			
Saturation	0.80	%	ASTM D570
Saturation, 23°C	0.80	%	ISO 62

Equilibrium, 50% RH	0.25	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.25	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	1700	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	44.0	MPa	ASTM D638, ISO 527-2
Yield, 80°C	22.0	MPa	ISO 527-2
Tensile Elongation (Yield, 23°C)	14	%	ASTM D638, ISO 527-2
Nominal Tensile Strain at Break (23°C)	> 50	%	ISO 527-2
Tensile Creep Modulus			ISO 899-1
1 hr	1350	MPa	
1000 hr	1000	MPa	
Flexural Modulus (23°C)	1660	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-30°C	8.0	kJ/m ²	
23°C	13	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179
-30°C	300	kJ/m ²	
23°C	No Break		
Notched Izod Impact			ASTM D256
-40°C	91	J/m	
23°C	150	J/m	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	140	°C	ASTM D648
1.8 MPa, Unannealed	77.0	°C	ASTM D648
1.8 MPa, Unannealed	75.0	°C	ISO 75-2/A
Peak Melting Temperature	167	°C	ASTM D3418, ISO 3146
CLTE - Flow			
--	7.0E-5	cm/cm/°C	ASTM E831
--	1.3E-4	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity ¹	1.0E+14	ohms	ASTM D257, IEC 60093
Volume Resistivity			
1.50 mm	1.0E+11	ohms · cm	ASTM D257
--	1.0E+11	ohms · cm	IEC 60093
Electric Strength	40	kV/mm	IEC 60243-1
Dielectric Constant			IEC 60250
100 Hz	4.20		
1 MHz	4.20		
Dissipation Factor			IEC 60250

100 Hz	0.011		
1 MHz	0.019		
Comparative Tracking Index	600	V	IEC 60112
Injection	Nominal Value	Unit	
Drying Temperature	80.0 to 110	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.15	%	
Processing (Melt) Temp	190 to 230	°C	
Mold Temperature	60.0 to 120	°C	
Injection Pressure	3.50 to 7.00	MPa	
NOTE			
1.	1.5 mm		

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