

Ultraform® W 2320 003 UNC Q600

Acetal (POM) Copolymer

BASF Corporation

Message:

Ultraform W 2320 003 UNC Q600 is a very easy flowing and rapidly solidifying injection molding POM grade for use where processing is extremely difficult but mechanical properties are lower. Contains a mold release agent.

Applications

Typical applications include thin walled parts.

General Information	
UL YellowCard	E36632-531676
Additive	Mold Release
Features	Copolymer
	Good Flow
	Good Mold Release
Uses	Thin-walled Parts
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	1.40	g/cm ³	ASTM D792, ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	25.0	cm ³ /10min	ISO 1133
Molding Shrinkage			
Flow : 3.18 mm	1.9	%	
Across Flow	2.1	%	ISO 294-4
Flow	2.0	%	ISO 294-4
Water Absorption			
Saturation	0.80	%	ASTM D570
Saturation, 23°C	0.80	%	ISO 62
Equilibrium, 50% RH	0.20	%	ASTM D570

Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	2800	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	65.0	MPa	ASTM D638, ISO 527-2
Yield, -40°C	93.0	MPa	ISO 527-2
Yield, 80°C	33.0	MPa	ISO 527-2
Tensile Elongation (Yield, 23°C)	7.5	%	ASTM D638, ISO 527-2
Nominal Tensile Strain at Break (23°C)	24	%	ISO 527-2
Tensile Creep Modulus			ISO 899-1
1 hr	2100	MPa	
1000 hr	1350	MPa	
Flexural Modulus (23°C)	2760	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-30°C	4.0	kJ/m ²	
23°C	5.0	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179
-30°C	150	kJ/m ²	
23°C	150	kJ/m ²	
Notched Izod Impact			ASTM D256
-40°C	45	J/m	
23°C	55	J/m	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	154	°C	ASTM D648
1.8 MPa, Unannealed	99.0	°C	ASTM D648
1.8 MPa, Unannealed	100	°C	ISO 75-2/A
Peak Melting Temperature	167	°C	ASTM D3418, ISO 3146
CLTE - Flow			
--	6.0E-5	cm/cm/°C	ASTM E831
--	1.1E-4	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity ¹	1.0E+13	ohms	ASTM D257, IEC 60093
Volume Resistivity			
1.50 mm	1.0E+13	ohms · cm	ASTM D257
--	1.0E+13	ohms · cm	IEC 60093
Electric Strength	40	kV/mm	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
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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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

