

# Ultraform® W2320 003 UNC Q600

Acetal (POM) Copolymer

BASF Corporation

## Product Description

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. It conforms to FDA requirements of 21 CFR 177.2470.

## General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Mold Release
Features	• Good Flow
Uses	• Thin-walled Parts
Agency Ratings	• FDA 21 CFR 177.2470 • NSF 61 • USP Class VI
RoHS Compliance	• RoHS Compliant
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Injection Molding
Multi-Point Data	• Isochronous Stress vs. Strain (ISO 11403-1) • Shear Modulus vs. Temperature (ISO 11403-2) • Viscosity vs. Shear Rate (ISO 11403-2) • Isothermal Stress vs. Strain (ISO 11403-1) • Specific Heat vs. Temperature (ISO 11403-2) • Secant Modulus vs. Strain (ISO 11403-1) • Specific Volume vs. Temperature (ISO 11403-2)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	--	1.40 g/cm <sup>3</sup>	ASTM D792
--	--	1400 kg/m <sup>3</sup>	ISO 1183 <sup>2</sup>
Melt volume-flow rate (190°C/2.16 kg)	25.0 cm <sup>3</sup> /10min		ISO 1133 <sup>2</sup>
Molding Shrinkage			
Flow: 3.18 mm	1.9 %		ASTM D955
Across Flow	2.0 %		ISO 294-4
Flow	2.1 %		ISO 294-4
Water Absorption			
Saturation	0.80 %		ASTM D570 ISO 62 <sup>2</sup>
Equilibrium, 50% RH	0.20 %		ASTM D570
Equilibrium	0.20 %		ISO 62 <sup>2</sup>

Mechanical	Nominal Value	Unit	Test Method
Tensile modulus	2800 MPa		ISO 527-2 <sup>2</sup>
Tensile Strength			
Yield, 23°C	65.0 MPa		ASTM D638
Yield, -40°C	93.0 MPa		ISO 527-2
Yield, 80°C	33.0 MPa		ISO 527-2
Yield	65.0 MPa		ISO 527-2 <sup>2</sup>
Tensile Elongation			
Yield, 23°C	7.5 %		ASTM D638
Yield	7.5 %		ISO 527-2 <sup>2</sup>
Nominal strain at break	24 %		ISO 527-2 <sup>2</sup>
Tensile Creep Modulus			ISO 899-1 <sup>2</sup>
1 hr	2100 MPa		
1000 hr	1350 MPa		
Flexural Modulus (23°C)	2760 MPa		ASTM D790

Dongguan Yi-Ming Plastic Chemical Co., Ltd.

如需要更多物性资料请查阅 [www.kedisujiao.com](http://www.kedisujiao.com)

备注：以上原料物性数据由厂家发布,我公司仅提供参考！数据如有变动，请联系原料生产厂家获知。我公司不承担任何法律责任！

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Tuesday, December 15, 2009

Impact	Nominal Value	Unit	Test Method
Charpy notched impact strength			ISO 179/1eA <sup>2</sup>
-30°C	4.00	kJ/m <sup>2</sup>	
23°C	5.00	kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179
-30°C	150	kJ/m <sup>2</sup>	
23°C	150	kJ/m <sup>2</sup>	
Notched Izod Impact			ASTM D256
-40°C	44.8	J/m	
23°C	55.0	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	100	°C	ISO 75-2 <sup>2</sup>
Melting Temperature	167	°C	ASTM D3418 ISO 3146
CLTE - Flow			
--	0.000060	cm/cm/°C	ASTM E831
--	0.00011	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity <sup>3</sup>	1.0E+13	ohms	ASTM D257 IEC 60093 <sup>2</sup>
Volume Resistivity			
1.50 mm	1.0E+13	ohm·cm	ASTM D257
--	1.0E+11	ohm·m	IEC 60093 <sup>2</sup>
Relative Permittivity			IEC 60250 <sup>2</sup>
100 Hz	3.80		
1 MHz	3.80		
Dissipation Factor			IEC 60250 <sup>2</sup>
100 Hz	10		
1 MHz	50		
Comparative tracking index	600		IEC 60112 <sup>2</sup>
Electric strength	40	kV/mm	IEC 60243-1 <sup>2</sup>
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	
Injection Rate	Fast		

**Notes**

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

<sup>3</sup> 1.5 mm

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