

Ultraform® H4320 Q600

Acetal (POM) Copolymer

BASF Corporation

Product Description

Ultraform H4320 Q600 is an extrusion POM high molecular weight grade. This grade enables high extrusion rates with thick-walled product. It also exhibits high thermal stability and a low tendency to discolor.

General

Material Status	• Commercial: Active		
Availability	• North America		
Features	• Copolymer • Good Color Stability	• Good Flow • Good Thermal Stability	• High Molecular Weight
Uses	• Profiles • Rods	• Thick-walled Parts • Tubing	
Agency Ratings	• FDA 21 CFR 177.1500 • FDA 21 CFR 177.2440(a) • FDA 21 CFR 177.2440(b) • FDA 21 CFR 177.2440(c)	• FDA 21 CFR 177.2440(d)(2) • FDA 21 CFR 177.2440(e)(2) • NSF 14 • NSF 51	• NSF 61 • USP Class VI
RoHS Compliance	• RoHS Compliant		
Appearance	• Black	• Colors Available	• Natural Color
Forms	• Pellets		
Processing Method	• Extrusion • Injection Molding	• Profile Extrusion • Sheet Extrusion	
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 11403-2) • 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	--	1.39 g/cm ³	ASTM D792
	--	1390 kg/m ³	ISO 1183 ²
Melt volume-flow rate (190°C/2.16 kg)		2.20 cm ³ /10min	ISO 1133 ²
Molding Shrinkage			
Flow: 3.18 mm		2.0 %	ASTM D955
Across Flow		2.2 %	ISO 294-4
Flow		2.1 %	ISO 294-4
Water Absorption			
Saturation		0.80 %	ASTM D570 ISO 62 ²
Equilibrium, 50% RH		0.20 %	ASTM D570
Equilibrium		0.20 %	ISO 62 ²
Mechanical	Nominal Value	Unit	Test Method
Tensile modulus		2600 MPa	ISO 527-2 ²
Tensile Strength			
Yield, 23°C		63.0 MPa	ASTM D638
Yield, -40°C		93.0 MPa	ISO 527-2
Yield, 80°C		32.0 MPa	ISO 527-2
Yield		63.0 MPa	ISO 527-2 ²
Tensile Elongation			
Yield, 23°C		10 %	ASTM D638
Yield		10 %	ISO 527-2 ²
Nominal strain at break		31 %	ISO 527-2 ²
Tensile Creep Modulus (1000 hr)		1300 MPa	ISO 899-1 ²
Flexural Modulus			
23°C		2410 MPa	ASTM D790
23°C		2700 MPa	ISO 178

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如需要更多物性资料请查阅 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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Impact	Nominal Value	Unit	Test Method
Charpy notched impact strength			ISO 179/1eA ²
-30°C	5.50	kJ/m ²	
23°C	6.00	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179
-30°C	180	kJ/m ²	
23°C	250	kJ/m ²	
Notched Izod Impact			
-40°C	69.4	J/m	ASTM D256
23°C	80.1	J/m	ASTM D256
-40°C	4.00	kJ/m ²	ISO 180
23°C	5.00	kJ/m ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	154	°C	ASTM D648
1.8 MPa, Unannealed	96.0	°C	ASTM D648
1.8 MPa	95.0	°C	ISO 75-2 ²
Melting Temperature	166	°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 ³	1.0E+13	ohms	ASTM D257 IEC 60093 ²
Volume Resistivity			
1.50 mm	1.0E+13	ohm·cm	ASTM D257
--	1.0E+11	ohm·m	IEC 60093 ²
Relative Permittivity			IEC 60250 ²
100 Hz	3.80		
1 MHz	3.80		
Dissipation Factor			IEC 60250 ²
100 Hz	10		
1 MHz	50		
Comparative tracking index	600		IEC 60112 ²
Electric strength	40	kV/mm	IEC 60243-1 ²
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (1.50 mm)	HB		UL 94
UL 746	Nominal Value	Unit	Test Method
RTI Str (1.50 mm)	100	°C	UL 746
RTI Imp (1.50 mm)	90.0	°C	UL 746
RTI Elec (1.50 mm)	110	°C	UL 746
Extrusion	Nominal Value	Unit	
Drying Temperature	80.0 to 110	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.15	%	
Cylinder Zone 1 Temp.	170	°C	
Cylinder Zone 3 Temp.	180	°C	
Cylinder Zone 5 Temp.	200	°C	
Adapter Temperature	175	°C	
Melt Temperature	175 to 200	°C	
Die Temperature	175	°C	

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Notes

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

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

³ 1.5 mm

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