

# Ultraform® H4320

## Acetal (POM) Copolymer

### BASF Corporation

**Product Description**  
High-molecular-weight grade for the extrusion of semifinished product; particularly thick walled product can be extruded at high output rates; the material also features high thermal stability and low discoloration.

General			
Material Status	• Commercial: Active		
Availability	• Europe		
Features	• Good Color Stability	• Good Thermal Stability	• High Molecular Weight
Uses	• Thick-walled Parts		
RoHS Compliance	• RoHS Compliant		
Forms	• Granules		
Processing Method	• Extrusion	• 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)	
Resin ID (ISO 1043)	• POM		

Physical	Nominal Value	Unit	Test Method
Density	1.39	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	2.20	cm <sup>3</sup> /10min	ISO 1133
Water Absorption			ISO 62
Saturation, 23°C	0.80	%	
Equilibrium, 23°C, 50% RH	0.20	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	2600	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	63.0	MPa	ISO 527-2/50
Tensile Strain (Yield, 23°C)	10	%	ISO 527-2/50
Nominal Tensile Strain at Break (23°C)	31	%	ISO 527-2/50
Tensile Creep Modulus (1000 hr)	1300	MPa	ISO 899-1

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	5.5	kJ/m <sup>2</sup>	
23°C	6.0	kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	180	kJ/m <sup>2</sup>	
23°C	No Break		

Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	125	MPa	ISO 2039-1

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			ISO 75-2/A
1.8 MPa, Unannealed	95.0	°C	
Melting Temperature (DSC)	166	°C	ISO 3146
CLTE - Flow (23 to 55°C)	0.00012	cm/cm/°C	ISO 11359-2

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohm·cm	IEC 60093
Relative Permittivity (23°C, 1 MHz)	3.80		IEC 60250
Dissipation Factor (23°C, 1 MHz)	0.0050		IEC 60250
Comparative Tracking Index (Solution A)	600	V	IEC 60112

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (1.60 mm)	HB		UL 94

**Additional Information**  
The value listed as Melting Temperature (DSC), ISO 3146, was tested in accordance with ISO 3146.  
Maximum Service Temperature (Short Cycle Operation): 100°C  
POM-K, E-GNR, 01-002

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

Injection	Nominal Value	Unit
Processing (Melt) Temp	190 to 230	°C
Mold Temperature	60.0 to 100	°C

**Notes**

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

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