

## BASF Ultraform® W2320 U03 POM

Category : Polymer , Thermoplastic , Acetal (POM) , Acetal Copolymer, Unreinforced

### Material Notes:

Description: Very free-flowing, rapidly solidifying grade with UV stabilization for use where processing is extremely difficult but mechanical requirements are lower. Information provided by BASF

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_BASF-Ultraform-W2320-U03-POM.php](http://www.lookpolymers.com/polymer_BASF-Ultraform-W2320-U03-POM.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.850 g/cc	0.0307 lb/in <sup>3</sup>	
Density	1.40 g/cc	0.0506 lb/in <sup>3</sup>	ISO 1183
Water Absorption	0.80 %	0.80 %	ISO 62
Moisture Absorption at Equilibrium	0.20 %	0.20 %	ISO 62
Linear Mold Shrinkage, Flow	0.020 cm/cm	0.020 in/in	ISO 2577
Linear Mold Shrinkage, Transverse	0.021 cm/cm	0.021 in/in	ISO 2577
Melt Flow	32.2 g/10 min @Load 2.16 kg, Temperature 190 °C	32.2 g/10 min @Load 4.76 lb, Temperature 374 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	145 MPa @Load 36.5 kg, Time 30.0 sec	21000 psi @Load 80.5 lb, Time 0.00833 hour	ISO 2039-1
Tensile Strength, Yield	64.0 MPa	9280 psi	50 mm/min; ISO 527-1/-2
Elongation at Break	24 %	24 %	50 mm/min, Nominal; ISO 527-1/-2
Elongation at Yield	7.5 %	7.5 %	50 mm/min; ISO 527-1/-2
Tensile Modulus	2.75 GPa	399 ksi	ISO 527-1/-2
Charpy Impact Unnotched	15.0 J/cm <sup>2</sup> @Temperature -30.0 °C	71.4 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eU
	16.0 J/cm <sup>2</sup> @Temperature 23.0 °C	76.1 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	0.450 J/cm <sup>2</sup> @Temperature -30.0 °C	2.14 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eA

Mechanical Properties	Metric	English	Comments
	@Temperature 23.0 °C	@Temperature 73.4 °F	ISO 179/1eA
Tensile Creep Modulus, 1000 hours	1350 MPa @Strain <=0.500 %	196000 psi @Strain <=0.500 %	ISO 899-1

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	110 µm/m-°C @Temperature 23.0 - 55.0 °C	61.1 µin/in-°F @Temperature 73.4 - 131 °F	ISO 11359-1/-2
Melting Point	167 °C	333 °F	ISO 11357-1/-3
Maximum Service Temperature, Air	100 °C	212 °F	
Deflection Temperature at 1.8 MPa (264 psi)	95.0 °C	203 °F	ISO 75-1/-2
Decomposition Temperature	>= 240 °C	>= 464 °F	
Flammability, UL94	HB @Thickness 1.60 mm	HB @Thickness 0.0630 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	IEC 60093
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	IEC 60093
Dielectric Constant	3.8 @Frequency 1.00e+6 Hz	3.8 @Frequency 1.00e+6 Hz	IEC 60250
Dissipation Factor	0.0050 @Frequency 1.00e+6 Hz	0.0050 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	Test Solution A; IEC 60112

Processing Properties	Metric	English	Comments
Processing Temperature	200 °C	392 °F	Hopper Throat
Zone 1	200 °C	392 °F	Feed zone
Zone 2	200 °C	392 °F	Compression
Zone 3	200 °C	392 °F	Metering-zone

Zone 4 Processing Properties	200 °C Metric	392 °F English	Nozzle Comments
Melt Temperature	200 °C	392 °F	Optimal
	190 - 230 °C	374 - 446 °F	Injection molding
Mold Temperature	60.0 - 120 °C	140 - 248 °F	Injection molding
	90.0 °C	194 °F	Optimal
Drying Temperature	100 °C	212 °F	
Dry Time	3 hour	3 hour	

Descriptive Properties	Value	Comments
Ignition Temperature	320 - 340 °C	ASTM D1929
Peripheral screw speed	<0.3 m/s	

## Contact Songhan Plastic Technology Co.,Ltd.

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