

BASF Ultraform® W 2320 003

LEV AT POM

Product Description: Ultraform® W2320 003 LEV AT is a very easy flowing and rapidly solidifying injection molding POM grade for use where processing is extremely difficult but mechanical properties are lower. This grade is designed to achieve low emission and smell. Typical applications include difficult, thin-walled parts.

Physical Properties	Metric	English	Comments
Density	1.41 g/cc	0.0509 lb/in ³	ISO 1183
Water Absorption	0.20 %	0.20 %	Equilibrium, 50% RH; ISO 62
Water Absorption at Saturation	0.80 %	0.80 %	ISO 62
Maximum Moisture Content	0.15	0.15	
Linear Mold Shrinkage, Flow	0.020 cm/cm	0.020 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.021 cm/cm	0.021 in/in	ISO 294-4
Melt Flow	25 g/10 min @Load 2.16 kg, Temperature 190 °C	25 g/10 min @Load 4.76 lb, Temperature 374 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	65.0 MPa	9430 psi	ISO 527-2
Elongation at Break	24 %	24 %	Nominal; ISO 527-2
Elongation at Yield	8.0 %	8.0 %	ISO 527-2
Tensile Modulus	2.85 GPa	413 ksi	ISO 527-1
Charpy Impact Unnotched	18.9 J/cm ² @Temperature -30.0 °C	90.0 ft-lb/in ² @Temperature -22.0 °F	ISO 179
	18.9 J/cm ² @Temperature 22.8 °C	90.0 ft-lb/in ² @Temperature 73.0 °F	ISO 179
Charpy Impact, Notched	0.399 J/cm ² @Temperature -30.0 °C	1.90 ft-lb/in ² @Temperature -22.0 °F	ISO 179
	0.441 J/cm ² @Temperature 22.8 °C	2.10 ft-lb/in ² @Temperature 73.0 °F	ISO 179
Tensile Creep Modulus, 1000 hours	1350 MPa	196000 psi	ISO 899-1

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 1e+6 Hz	3.8 @Frequency 1e+6 Hz	IEC 60250
Dissipation Factor	0.0050 @Frequency 1e+6 Hz	0.0050 @Frequency 1e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	Solution A; IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	110 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	61.0 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	ISO 11359-2
Melting Point	166 $^\circ\text{C}$	331 $^\circ\text{F}$	ISO 3146
Deflection Temperature at 1.8 MPa (264 psi)	100 $^\circ\text{C}$	212 $^\circ\text{F}$	Unannealed; ISO 75-2/A

Processing Properties	Metric	English	Comments
Melt Temperature	190 - 230 $^\circ\text{C}$	374 - 446 $^\circ\text{F}$	
Mold Temperature	60.0 - 120 $^\circ\text{C}$	140 - 248 $^\circ\text{F}$	
Drying Temperature	80.0 - 110 $^\circ\text{C}$	176 - 230 $^\circ\text{F}$	
Dry Time	2.00 - 4.00 hour	2.00 - 4.00 hour	
Injection Pressure	3.50 - 7.03 MPa	508 - 1020 psi	