

# BASF Ultraform® N 2320 U035 LEV AT POM

Ultraform N 2320 U035 LEV AT is a UV stabilized, rapidly freezing general-purpose injection molding POM grade designed to achieve low emission and smell.

Applications: Typical applications include gas filler caps, irrigation systems, windshield wiper clips and loud speaker grills.

Physical Properties	Metric	English	Comments
Density	1.41 g/cc	0.0509 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.200 %	0.200 %	50% RH; ISO 62
Water Absorption at Saturation	0.90 %	0.90 %	ISO 62
Linear Mold Shrinkage, Flow	0.021 cm/cm	0.021 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.021 cm/cm	0.021 in/in	ISO 294-4
Melt Flow	7.5 g/10 min @Load 2.16 kg, Temperature 190 °C	7.5 g/10 min @Load 4.76 lb, Temperature 374 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	63.0 MPa	9140 psi	ISO 527
Elongation at Break	26 %	26 %	Nominal; ISO 527
Elongation at Yield	10.5 %	10.5 %	ISO 527
Tensile Modulus	2.60 GPa	377 ksi	ISO 527
Charpy Impact Unnotched	25.0 J/cm <sup>2</sup> @Temperature -30.0 °C	119 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179
	30.0 J/cm <sup>2</sup> @Temperature 23.0 °C	143 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179
Charpy Impact, Notched	0.600 J/cm <sup>2</sup> @Temperature -30.0 °C	2.86 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179
	0.650 J/cm <sup>2</sup> @Temperature 23.0 °C	3.09 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179
Tensile Creep Modulus, 1000 hours	1300 MPa	189000 psi	ISO 899

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+11 ohm-cm	1.00e+11 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
Dielectric Strength	85.0 kV/mm	2160 kV/in	IEC 60243-1
Dissipation Factor	0.050 @Frequency 1e+6 Hz	0.050 @Frequency 1e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	110 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	61.1 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
Melting Point	165 $^\circ\text{C}$	329 $^\circ\text{F}$	ISO 3146
Deflection Temperature at 1.8 MPa (264 psi)	95.0 $^\circ\text{C}$	203 $^\circ\text{F}$	ISO 75

Processing Properties	Metric	English	Comments
Melt Temperature	190 - 230 $^\circ\text{C}$	374 - 446 $^\circ\text{F}$	
Mold Temperature	45.0 - 105 $^\circ\text{C}$	113 - 221 $^\circ\text{F}$	can be used where applicable
	80.0 - 90.0 $^\circ\text{C}$	176 - 194 $^\circ\text{F}$	recommended
	60.0 - 120 $^\circ\text{C}$	140 - 248 $^\circ\text{F}$	
Drying Temperature	80.0 - 110 $^\circ\text{C}$ @Time 7200 - 14400 sec	176 - 230 $^\circ\text{F}$ @Time 2.00 - 4.00 hour	
Moisture Content	$\leq 0.15\%$	$\leq 0.15\%$	
Injection Pressure	3.45 - 6.89 MPa	500 - 1000 psi	