

BASF Ultramid[®] B3L (Conditioned)

Ultramid B3L is an impact-modified, easy flowing injection molding PA6 grade for fast processing.

Physical Properties	Metric	English	Comments
Density	1.10 g/cc	0.0397 lb/in ³	ISO 1183
Water Absorption	8.5 - 9.5 %	8.5 - 9.5 %	ISO 62
Moisture Absorption at Equilibrium	2.1 - 2.9 %	2.1 - 2.9 %	(23°C/50% R.H.); ISO 62
Melt Flow	121 g/10 min @Load 5.00 kg, Temperature 275 °C	121 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	35.0 MPa	5080 psi	50mm/min; ISO 527
Elongation at Yield	18 %	18 %	50mm/min; ISO 527
Modulus of Elasticity	0.900 GPa	131 ksi	ISO 527
Izod Impact, Notched (ISO)	NB	NB	ISO 180/A
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
Charpy Impact, Notched	NB	NB	ISO 179/1eA
Tensile Creep Modulus, 1000 hours	550 MPa	79800 psi	ISO 899

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+10 ohm-cm	1.00e+10 ohm-cm	IEC 60093
Surface Resistance	1.00e+10 ohm	1.00e+10 ohm	IEC 60093
Dielectric Constant	6.4 @Frequency 1e+6 Hz	6.4 @Frequency 1e+6 Hz	IEC 60250
Dissipation Factor	0.24 @Frequency 1e+6 Hz	0.24 @Frequency 1e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	Test Solution A; IEC 60112

Thermal Properties	Metric	English	Comments
Specific Heat Capacity	1.50 J/g-°C	0.359 BTU/lb-°F	
Thermal Conductivity	0.320 W/m-K	2.22 BTU-in/hr-ft ² -°F	DIN 52612
Melting Point	220 °C	428 °F	DIN 53765
Maximum Service Temperature, Air	160 °C	320 °F	

Processing Properties	Metric	English	Comments
Melt Temperature	250 - 270 °C	482 - 518 °F	Injection-molding/Extrusion
Mold Temperature	40.0 - 80.0 °C	104 - 176 °F	Injection-molding