

BASF Ultramid® B3K

Ultramid B 3K is an easy flowing, stabilized for fast processing, grade of nylon 6.

Physical Properties	Metric	English	Comments
Density	1.13 g/cc	0.0408 lb/in ³	ISO 1183
Water Absorption	9.0 - 10 %	9.0 - 10 %	ISO 62
Moisture Absorption at Equilibrium	2.6 - 3.4 %	2.6 - 3.4 %	(23°C/50% R.H.); ISO 62
Viscosity Number	150 cm ³ /g	1.50 dl/g	ISO 307
Linear Mold Shrinkage	0.0065 cm/cm	0.0065 in/in	

Melt Flow	181 g/10 min @Load 5.00 kg, Temperature 275 °C	181 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133
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Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	40.0 MPa	5800 psi	50mm/min; ISO 527
Elongation at Yield	20 %	20 %	50mm/min; ISO 527
Modulus of Elasticity	1.00 GPa	145 ksi	ISO 527
Izod Impact, Notched (ISO)	NB	NB	ISO 180/A
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
Charpy Impact, Notched	6.00 J/cm ²	28.6 ft-lb/in ²	ISO 179/1eA
Tensile Creep Modulus, 1000 hours	700 MPa	102000 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	7.0 @Frequency 1e+6 Hz	7.0 @Frequency 1e+6 Hz	IEC 60250
Dissipation Factor	0.30 @Frequency 1e+6 Hz	0.30 @Frequency 1e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	Test Solution A; IEC 60112