

BASF Ultramid® B3ZG6

Ultramid B3ZG6 is an impact-modified, 30% glass fiber reinforced injection molding PA6 grade for industrial items having very high impact strength and rigidity.

Physical Properties	Metric	English	Comments
Density	1.33 g/cc	0.0480 lb/in ³	ISO 1183
Water Absorption	5.9 - 6.5 %	5.9 - 6.5 %	ISO 62
Moisture Absorption at Equilibrium	1.8 - 2.2 %	1.8 - 2.2 %	23°C/50% R.H.; ISO 62
Viscosity Number	160 cm ³ /g	1.60 dl/g	ISO 307
Linear Mold Shrinkage	0.0050 cm/cm	0.0050 in/in	
Melt Flow	33.3 g/10 min @Load 5.00 kg, Temperature 275 °C	33.3 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133
Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	150 MPa	21800 psi	50mm/min; ISO 527
Elongation at Yield	3.6 %	3.6 %	50mm/min; ISO 527
Modulus of Elasticity	9.00 GPa	1310 ksi	ISO 527
Flexural Strength	220 MPa	31900 psi	ISO 178
Flexural Modulus	7.40 GPa	1070 ksi	ISO 178
Izod Impact, Notched (ISO)	20.0 kJ/m ²	9.52 ft-lb/in ²	ISO 180/A
	10.0 kJ/m ² @Temperature -30.0 °C	4.76 ft-lb/in ² @Temperature -22.0 °F	ISO 180/A
Charpy Impact Unnotched	9.50 J/cm ²	45.2 ft-lb/in ²	ISO 179/1eU
	9.00 J/cm ² @Temperature -30.0 °C	42.8 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	2.00 J/cm ²	9.52 ft-lb/in ²	ISO 179/1eA
	1.50 J/cm ² @Temperature -30.0 °C	7.14 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA
Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	IEC 60093
Dielectric Constant	3.8 @Frequency 1e+6 Hz	3.8 @Frequency 1e+6 Hz	IEC 60250
Dissipation Factor	0.020 @Frequency 1e+6 Hz	0.020 @Frequency 1e+6 Hz	IEC 60250
Comparative Tracking Index	550 V	550 V	Test Solution A; IEC 60112