

BASF Ultramid® B3ZG3

Ultramid B3ZG3 is an impact-modified, 15% glass fiber reinforced injection molding PA6 grade.

Physical Properties	Metric	English	Comments
Density	1.22 g/cc	0.0441 lb/in ³	ISO 1183
Water Absorption	7.5 %	7.5 %	ISO 62
Moisture Absorption at Equilibrium	2.4 %	2.4 %	23°C/50% R.H.; ISO 62
Linear Mold Shrinkage	0.0050 cm/cm	0.0050 in/in	ASTM Data; MD
Melt Flow	30 g/10 min @Load 5.00 kg, Temperature 275 °C	30 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	103 MPa	14900 psi	0.2 in/min; ASTM Test
	163 MPa @Temperature -40.0 °C	23600 psi @Temperature -40.0 °F	ISO Data
Tensile Strength, Ultimate	110 MPa	16000 psi	5mm/min; ISO 527
Tensile Strength, Yield	53.0 MPa @Temperature 80.0 °C	7690 psi @Temperature 176 °F	ISO Data
Elongation at Break	4.0 %	4.0 %	5mm/min; ISO 527
	4.0 %	4.0 %	0.2 in/min; ASTM Test
	4.5 % @Temperature -40.0 °C	4.5 % @Temperature -40.0 °F	ISO Data
Elongation at Yield	8.6 % @Temperature 80.0 °C	8.6 % @Temperature 176 °F	ISO Data
Tensile Modulus	5.17 GPa	750 ksi	ASTM Test
	5.50 GPa	798 ksi	1mm/min; ISO 527
Flexural Modulus	4.48 GPa	650 ksi	ASTM Test
	4.50 GPa	653 ksi	ISO Data
Izod Impact, Notched	0.530 J/cm @Temperature -40.0 °C	0.993 ft-lb/in @Temperature -40.0 °F	ASTM Test
	1.07 J/cm @Thickness 3.17 mm	2.00 ft-lb/in @Thickness 0.125 in	ASTM Test
Izod Impact, Notched (ISO)	15.0 kJ/m ²	7.14 ft-lb/in ²	ISO Test
Charpy Impact Unnotched	7.50 J/cm ²	35.7 ft-lb/in ²	ISO 179
	5.50 J/cm ² @Temperature -30.0 °C	26.2 ft-lb/in ² @Temperature -22.0 °F	ISO 179
Charpy Impact, Notched	1.60 J/cm ²	7.61 ft-lb/in ²	ISO 179
	0.700 J/cm ² @Temperature -30.0 °C	3.33 ft-lb/in ² @Temperature -22.0 °F	ISO 179