

BASF Ultramid® B3EG3

Description: 15% glass-fiber reinforced injection-molding grade with enhanced impact resistance, for example, for vehicle mirror housings as well as for the wheels of mountain bikes.
Information provided by BASF

Physical Properties	Metric	English	Comments
Density	1.23 g/cc	0.0444 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	2.3 %	2.3 %	50% RH
	2.3 - 2.9 %	2.3 - 2.9 %	23°C; 50% RH; ISO 62
	7.7 %	7.7 %	Saturation
Water Absorption at Saturation	7.7 - 8.3 %	7.7 - 8.3 %	ISO 62
Viscosity Measurement	140	140	ISO 307
Linear Mold Shrinkage	0.0045 cm/cm	0.0045 in/in	restricted
Melt Flow	92.25 g/10 min @Load 5.00 kg, Temperature 275 °C	92.25 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	ASTM D638
Tensile Strength, Yield	130 MPa	18900 psi	50 mm/min; ISO 527-1/-2
Elongation at Break	3.5 %	3.5 %	ASTM D638
Elongation at Yield	3.5 %	3.5 %	50 mm/min; ISO 527-1/-2
Modulus of Elasticity	5.80 GPa	841 ksi	ISO 527-1/-2
Flexural Strength	180 MPa	26100 psi	at max force; ISO 178
Flexural Modulus	5.20 GPa	754 ksi	ISO 178
Izod Impact, Notched (ISO)	6.00 kJ/m ² @Temperature 23.0 °C	2.86 ft-lb/in ² @Temperature 73.4 °F	ISO 180/A
Charpy Impact Unnotched	4.50 J/cm ² @Temperature -30.0 °C	21.4 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
	4.80 J/cm ² @Temperature -40.0 °C	22.8 ft-lb/in ² @Temperature -40.0 °F	ASTM D256
	5.00 J/cm ² @Temperature 23.0 °C	23.8 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	0.700 J/cm ² @Temperature -30.0 °C	3.33 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA
	0.800 J/cm ² @Temperature 23.0 °C	3.81 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eA