

BASF Ultramid® B3WG6

Ultramid B3WG6 is a 30% glass fiber reinforced, heat stabilized injection molding PA6 grade.

Physical Properties	Metric	English	Comments
Density	1.36 g/cc	0.0491 lb/in ³	ISO 1183
Water Absorption	6.3 - 6.9 %	6.3 - 6.9 %	ISO 62
Moisture Absorption at Equilibrium	1.9 - 2.3 %	1.9 - 2.3 %	23°C/50% R.H.; ISO 62
Viscosity Number	140 cm ³ /g	1.40 dl/g	ISO 307
Linear Mold Shrinkage	0.0035 cm/cm	0.0035 in/in	
Melt Flow	68 g/10 min @Load 5.00 kg, Temperature 275 °C	68 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	185 MPa	26800 psi	50mm/min; ISO 527
Elongation at Yield	3.5 %	3.5 %	50mm/min; ISO 527
Modulus of Elasticity	9.50 GPa	1380 ksi	ISO 527
Flexural Strength	270 MPa	39200 psi	ISO 178
Flexural Modulus	8.60 GPa	1250 ksi	ISO 178
Izod Impact, Notched (ISO)	15.0 kJ/m ²	7.14 ft-lb/in ²	ISO 180/A
Charpy Impact Unnotched	9.50 J/cm ²	45.2 ft-lb/in ²	ISO 179/1eU
	8.00 J/cm ² @Temperature -30.0 °C	38.1 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	1.50 J/cm ²	7.14 ft-lb/in ²	ISO 179/1eA
	1.10 J/cm ² @Temperature -30.0 °C	5.24 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	0.023 @Frequency 1e+6 Hz	0.023 @Frequency 1e+6 Hz	IEC 60250

Comparative Tracking Index

450 V

450 V

Test Solution A; IEC
60112