

BASF Ultramid® A3ZG6

Description: Impact-modified, 35% glass-fiber reinforced injection-molding grade.
Information provided by BASF

Physical Properties	Metric	English	Comments
Density	1.33 g/cc	0.0480 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	1.3 - 1.7 %	1.3 - 1.7 %	23°C; 50% RH; ISO 62
Water Absorption at Saturation	4.7 - 5.3 %	4.7 - 5.3 %	ISO 62
Viscosity Measurement	160	160	ISO 307
Linear Mold Shrinkage	0.0055 cm/cm	0.0055 in/in	restricted
Melt Flow	19.95 g/10 min @Load 5.00 kg, Temperature 275 °C	19.95 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	140 MPa	20300 psi	50 mm/min; ISO 527-1/-2
Elongation at Yield	3.5 %	3.5 %	50 mm/min; ISO 527-1/-2
Modulus of Elasticity	8.50 GPa	1230 ksi	ISO 527-1/-2
Flexural Strength	210 MPa	30500 psi	at max force; ISO 178
Flexural Modulus	7.30 GPa	1060 ksi	ISO 178
Izod Impact, Notched (ISO)	15.0 kJ/m ² @Temperature -30.0 °C	7.14 ft-lb/in ² @Temperature -22.0 °F	ISO 180/A
	17.0 kJ/m ² @Temperature 23.0 °C	8.09 ft-lb/in ² @Temperature 73.4 °F	ISO 180/A
Charpy Impact Unnotched	8.50 J/cm ² @Temperature -30.0 °C	40.4 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
	9.00 J/cm ² @Temperature 23.0 °C	42.8 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	1.00 J/cm ² @Temperature -30.0 °C	4.76 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA
	1.90 J/cm ² @Temperature 23.0 °C	9.04 ft-lb/in ² @Temperature 73.4 °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	3.5 @Frequency 1e+6 Hz	3.5 @Frequency 1e+6 Hz	IEC 60250
Dissipation Factor	0.014 @Frequency 1e+6 Hz	0.014 @Frequency 1e+6 Hz	IEC 60250
Comparative Tracking Index	550 V	550 V	Test solution A; IEC 60112