

BASF Ultramid® A3EG7

Ultramid A3EG6 is a 35% glass fiber reinforced injection molding PA66 grade for machinery components and housings of high stiffness and dimensional stability.

Physical Properties	Metric	English	Comments
Density	1.41 g/cc	0.0509 lb/in ³	ISO 1183
Water Absorption	4.7 - 5.3 %	4.7 - 5.3 %	ISO 62
Moisture Absorption at Equilibrium	1.4 - 1.8 %	1.4 - 1.8 %	23°C/50% R.H.; ISO 62
Viscosity Number	145 cm ³ /g	1.45 dl/g	ISO 307
Linear Mold Shrinkage	0.0050 cm/cm	0.0050 in/in	

Melt Flow	49.3 g/10 min @Load 5.00 kg, Temperature 275 °C	49.3 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133
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Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	210 MPa	30500 psi	50mm/min; ISO 527
Elongation at Yield	3.0 %	3.0 %	50mm/min; ISO 527
Tensile Modulus	11.5 GPa	1670 ksi	ISO 527
Flexural Strength	300 MPa	43500 psi	ISO 178
Flexural Modulus	10.0 GPa	1450 ksi	ISO 178
Izod Impact, Notched (ISO)	14.0 kJ/m ²	6.66 ft-lb/in ²	ISO 180/A
Charpy Impact Unnotched	9.50 J/cm ²	45.2 ft-lb/in ²	ISO 179/1eU
Charpy Impact, Notched	7.50 J/cm ² @Temperature -30.0 °C	35.7 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
	1.40 J/cm ²	6.66 ft-lb/in ²	ISO 179/1eA
	1.20 J/cm ² @Temperature -30.0 °C	5.71 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	3.5 @Frequency 1e+6 Hz	3.5 @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
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