

BASF Ultramid® B3GM35 Q611

Ultramid B3GM35 Q611 is a 40% combined glass-fiber and mineral reinforced injection molding PA6 grade.

Physical Properties	Metric	English	Comments
Density	1.48 g/cc	0.0535 lb/in ³	ISO 1183
Water Absorption	6.6 %	6.6 %	ISO 62
Moisture Absorption at Equilibrium	2.0 %	2.0 %	23°C/50% R.H.; ISO 62
Viscosity Number	130 cm ³ /g	1.30 dl/g	
Linear Mold Shrinkage	0.0040 cm/cm	0.0040 in/in	ASTM Data; MD
Melt Flow	25 g/10 min @Load 5.00 kg, Temperature 275 °C	25 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	120 MPa	17400 psi	5mm/min; ISO 527
Elongation at Break	3.0 %	3.0 %	5mm/min; ISO 527
Tensile Modulus	8.00 GPa	1160 ksi	1mm/min; ISO 527
Charpy Impact Unnotched	5.00 J/cm ²	23.8 ft-lb/in ²	ISO 179
	5.00 J/cm ² @Temperature -30.0 °C	23.8 ft-lb/in ² @Temperature -22.0 °F	ISO 179
Charpy Impact, Notched	0.800 J/cm ²	3.81 ft-lb/in ²	ISO 179
	0.600 J/cm ² @Temperature -30.0 °C	2.86 ft-lb/in ² @Temperature -22.0 °F	ISO 179

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	IEC 60093
Surface Resistance	1.00e+12 ohm	1.00e+12 ohm	IEC 60093
Dielectric Constant	3.9 @Frequency 1e+6 Hz	3.9 @Frequency 1e+6 Hz	IEC 60250
Dissipation Factor	0.020 @Frequency 1e+6 Hz	0.020 @Frequency 1e+6 Hz	IEC 60250
	0.020 @Frequency 100 Hz	0.020 @Frequency 100 Hz	IEC 60250
Comparative Tracking Index	400 V	400 V	IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	38.0 µm/m-°C	21.1 µin/in-°F	ISO 11359
Melting Point	220 °C	428 °F	10 K/min
Deflection Temperature at 0.46 MPa (66 psi)	215 °C	419 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	200 °C	392 °F	ISO 75
Flammability, UL94	HB @Thickness 1.59 mm	HB @Thickness 0.0626 in	