

BASF Ultramid® B3M6

Ultramid B3M6 is a 30% mineral reinforced injection molding PA6 grade for industrial items requiring high impact strength and very high dimensional stability, excellent laser markability.

Physical Properties	Metric	English	Comments
Density	1.36 g/cc	0.0491 lb/in ³	ISO 1183
Water Absorption	6.2 %	6.2 %	ISO 62
Moisture Absorption at Equilibrium	2.4 %	2.4 %	23°C/50% R.H.; ISO 62
Viscosity Number	150 cm ³ /g	1.50 dl/g	
Linear Mold Shrinkage	0.0090 cm/cm	0.0090 in/in	ASTM Data; MD

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	76.0 MPa	11000 psi	0.2 in/min; ASTM Test
Tensile Strength, Ultimate	85.0 MPa	12300 psi	5mm/min; ISO 527
Elongation at Break	5.0 %	5.0 %	0.2 in/min; ASTM Test
	15 %	15 %	5mm/min; ISO 527
Tensile Modulus	4.60 GPa	667 ksi	1mm/min; ISO 527
	5.17 GPa	750 ksi	ASTM Test
Flexural Modulus	4.00 GPa	580 ksi	ISO Data
	4.10 GPa	595 ksi	ASTM Test
Izod Impact, Notched	0.450 J/cm @Temperature -40.0 °C	0.843 ft-lb/in @Temperature -40.0 °F	ASTM Test
	0.640 J/cm @Thickness 3.17 mm	1.20 ft-lb/in @Thickness 0.125 in	ASTM Test
Izod Impact, Notched (ISO)	6.50 kJ/m ²	3.09 ft-lb/in ²	ISO Test
Charpy Impact Unnotched	22.0 J/cm ²	105 ft-lb/in ²	ISO 179
	14.5 J/cm ² @Temperature -30.0 °C	69.0 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
	0.700 J/cm ² @Temperature -30.0 °C	3.33 ft-lb/in ² @Temperature -22.0 °F	ISO 179