

BASF Ultramid® B3S HP (Dry)

Ultramid B3S HP is a easy flowing, finely crystalline, injection molding PA6 for fast processing.

Physical Properties	Metric	English	Comments
Density	1.13 g/cc	0.0408 lb/in ³	ISO 1183
Water Absorption	9.0 - 10 %	9.0 - 10 %	ISO 62
Moisture Absorption at Equilibrium	2.6 - 3.4 %	2.6 - 3.4 %	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	198 g/10 min @Load 5.00 kg, Temperature 275 °C	198 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength	10.0 MPa @Strain 1 %, Temperature 100 °C	1450 psi @Strain 1 %, Temperature 212 °F	ISO 527
	18.0 MPa @Strain 3 %, Temperature 100 °C	2610 psi @Strain 3 %, Temperature 212 °F	ISO 527
	20.0 MPa @Strain 1 %, Temperature 60.0 °C	2900 psi @Strain 1 %, Temperature 140 °F	ISO 527
	30.0 MPa @Strain 1 %, Temperature 23.0 °C	4350 psi @Strain 1 %, Temperature 73.4 °F	ISO 527
	40.0 MPa @Strain 1 %, Temperature -20.0 °C	5800 psi @Strain 1 %, Temperature -4.00 °F	ISO 527
	40.0 MPa @Strain 3 %, Temperature 60.0 °C	5800 psi @Strain 3 %, Temperature 140 °F	ISO 527
	80.0 MPa @Strain 3 %, Temperature 23.0 °C	11600 psi @Strain 3 %, Temperature 73.4 °F	ISO 527
	100 MPa @Strain 3 %, Temperature -20.0 °C	14500 psi @Strain 3 %, Temperature -4.00 °F	ISO 527
	Tensile Strength, Yield	90.0 MPa	13100 psi
Elongation at Yield	4.0 %	4.0 %	50mm/min; ISO 527
Modulus of Elasticity	3.40 GPa	493 ksi	ISO 527
Flexural Modulus	3.00 GPa	435 ksi	ISO 178
Izod Impact, Notched (ISO)	5.00 kJ/m ²	2.38 ft-lb/in ²	ISO 180/A
	5.00 kJ/m ² @Temperature -30.0 °C	2.38 ft-lb/in ² @Temperature -22.0 °F	ISO 180/A
Charpy Impact Unnotched	25.0 J/cm ²	119 ft-lb/in ²	ISO 179/1eU
	20.0 J/cm ² @Temperature -30.0 °C	95.2 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	0.400 J/cm ²	1.90 ft-lb/in ²	ISO 179/1eA
	0.300 J/cm ² @Temperature -30.0 °C	1.43 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA