

BASF Ultramid[®] A3HG6 HR Nylon 66

Ultramid A3HG6 HR is a 30% glass reinforced, injection molding PA66 grade. It offers good resistance to hydrolysis.
Applications: Typical applications include automotive radiator mounting frame.

Physical Properties	Metric	English	Comments
Density	1.37 g/cc	0.0495 lb/in ³	ISO 1183
Moisture Absorption	1.70 %	1.70 %	50% RH
Water Absorption at Saturation	5.5 %	5.5 %	

Melt Flow	25 g/10 min	25 g/10 min	ISO 1133
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Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	188 MPa	27300 psi	ISO 527
Elongation at Break	3.3 %	3.3 %	ISO 527
Tensile Modulus	10.1 GPa	1460 ksi	ISO 527
Flexural Strength	275 MPa	39900 psi	ISO 178
Flexural Modulus	8.85 GPa	1280 ksi	ISO 178

Izod Impact, Notched (ISO)	8.30 kJ/m ² @Temperature -40.0 °C	3.95 ft-lb/in ² @Temperature -40.0 °F	ISO 180
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	11.0 kJ/m ² @Temperature 23.0 °C	5.23 ft-lb/in ² @Temperature 73.4 °F	ISO 180
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Charpy Impact Unnotched	6.30 J/cm ² @Temperature -30.0 °C	30.0 ft-lb/in ² @Temperature -22.0 °F	ISO 179
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	7.70 J/cm ² @Temperature 23.0 °C	36.6 ft-lb/in ² @Temperature 73.4 °F	ISO 179
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Charpy Impact, Notched	0.900 J/cm ² @Temperature -40.0 °C	4.28 ft-lb/in ² @Temperature -40.0 °F	ISO 179
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	1.10 J/cm ² @Temperature 23.0 °C	5.23 ft-lb/in ² @Temperature 73.4 °F	ISO 179
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Thermal Properties	Metric	English	Comments
Melting Point	260 °C	500 °F	ISO 3146
Deflection Temperature at 1.8 MPa (264 psi)	249 °C	480 °F	ISO 75

Processing Properties	Metric	English	Comments
Melt Temperature	280 - 305 °C	536 - 581 °F	
Mold Temperature	45.0 - 105 °C	113 - 221 °F	can be used where applicable
	80.0 - 90.0 °C	176 - 194 °F	recommended
	80.0 - 90.0 °C	176 - 194 °F	

Drying Temperature	80.0 °C @Time 7200 - 14400 sec	176 °F @Time 2.00 - 4.00 hour	
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Moisture Content	<= 0.15 %	<= 0.15 %	
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Injection Pressure	3.45 - 10.3 MPa	500 - 1500 psi	
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