

## BASF Ultramid® A3W PA66 (Conditioned)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, Unreinforced

### Material Notes:

Description: Free-flowing, heat aging resistant and rapidly processable grade for technical parts subject to high stress such as bearings and bearing cages, gearwheels and spool bodies. Information provided by BASF

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_BASF-Ultramid-A3W-PA66-Conditioned.php](http://www.lookpolymers.com/polymer_BASF-Ultramid-A3W-PA66-Conditioned.php)

Physical Properties	Metric	English	Comments
Density	1.13 g/cc	0.0408 lb/in <sup>3</sup>	ISO 1183
Water Absorption	8.0 - 9.0 %	8.0 - 9.0 %	Saturation; ISO 62
Moisture Absorption at Equilibrium	2.5 - 3.1 %	2.5 - 3.1 %	23°C; 50% RH; ISO 62
Viscosity Measurement	150	150	ISO 307
Linear Mold Shrinkage	0.0085 cm/cm	0.0085 in/in	restricted
Melt Flow	113 g/10 min @Load 5.00 kg, Temperature 275 °C	113 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	50.0 MPa	7250 psi	50 mm/min; ISO 527-1/-2
Elongation at Yield	20 %	20 %	50mm/min; ISO 527-1/-2
Modulus of Elasticity	1.10 GPa	160 ksi	ISO 527-1/-2
Izod Impact, Notched (ISO)	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 180/A
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
Charpy Impact, Notched	2.00 J/cm <sup>2</sup> @Temperature 23.0 °C	9.52 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eA

Thermal Properties	Metric	English	Comments
Specific Heat Capacity	1.70 J/g-°C	0.406 BTU/lb-°F	
Thermal Conductivity	0.330 W/m-K	2.29 BTU-in/hr-ft <sup>2</sup> -°F	DIN 52612
Melting Point	260 °C	500 °F	DIN 53765

Maximum Service Temperature, Air Thermal Properties	121 °C Metric	250 °F English	for 50% loss of tensile strength after 5000hr
	147 °C	297 °F	for 50% loss of tensile strength after 5000hr
	200 °C	392 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+9 ohm-cm	1.00e+9 ohm-cm	IEC 60093
Surface Resistance	1.00e+9 ohm	1.00e+9 ohm	IEC 60093
Dielectric Constant	5.0 @Frequency 1.00 Hz	5.0 @Frequency 1.00 Hz	IEC 60250
Dissipation Factor	0.20 @Frequency 1.00e+6 Hz	0.20 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	500 V	500 V	Test solution A; IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	280 - 300 °C	536 - 572 °F	Injection-molding/Extrusion
Mold Temperature	40.0 - 80.0 °C	104 - 176 °F	Injection-molding

Descriptive Properties	Value	Comments
Commercial Status	Europe	

## Contact Songhan Plastic Technology Co.,Ltd.

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