

## BASF Ultramid® C3U PA66/6 (Conditioned)

Category : Polymer , Thermoplastic , Nylon , Nylon 6/66 , Nylon 66/6 , Unreinforced

### Material Notes:

Ultramid C3U is an injection molding, general purpose PA66/6 grade with improved flame retardance.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_BASF-Ultramid-C3U-PA666-Conditioned.php](http://www.lookpolymers.com/polymer_BASF-Ultramid-C3U-PA666-Conditioned.php)

Physical Properties	Metric	English	Comments
Density	1.16 g/cc	0.0419 lb/in <sup>3</sup>	ISO 1183
Water Absorption	8.0 - 9.0 %	8.0 - 9.0 %	ISO 62
Moisture Absorption at Equilibrium	2.6 - 3.2 %	2.6 - 3.2 %	(23°C/50% R.H.); ISO 62
Viscosity Test	150 cm <sup>3</sup> /g	150 cm <sup>3</sup> /g	Viscosity number; ISO 307
Linear Mold Shrinkage	0.0080 cm/cm	0.0080 in/in	
Melt Flow	162 g/10 min @Load 5.00 kg, Temperature 275 °C	162 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	45.0 MPa	6530 psi	50mm/min; ISO 527
Elongation at Yield	20 %	20 %	50mm/min; ISO 527
Modulus of Elasticity	1.50 GPa	218 ksi	ISO 527
Izod Impact, Notched (ISO)	11.0 kJ/m <sup>2</sup>	5.23 ft-lb/in <sup>2</sup>	ISO 180/A
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
Charpy Impact, Notched	3.50 J/cm <sup>2</sup>	16.7 ft-lb/in <sup>2</sup>	ISO 179/1eA
Tensile Creep Modulus, 1000 hours	890 MPa	129000 psi	ISO 899

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	243 °C	469 °F	DIN 53765
Maximum Service Temperature, Air	107 °C	225 °F	for 50% loss of tensile strength after 20,000 hr

Thermal Properties	123 °C Metric	253 °F English	for 50% loss of tensile strength after 5000 hr Comments
	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+10 ohm	1.00e+10 ohm	IEC 60093
Dielectric Constant	6.0 @Frequency 1.00e+6 Hz	6.0 @Frequency 1.00e+6 Hz	IEC 60250
Dissipation Factor	0.30 @Frequency 1.00e+6 Hz	0.30 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	Test Solution A; IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	250 - 270 °C	482 - 518 °F	Injection-molding/Extrusion
Mold Temperature	60.0 - 80.0 °C	140 - 176 °F	Injection-molding

Descriptive Properties	Value	Comments
Color	Natural	
Commercial Status	North America and Europe	
Impact Modified	No	
Primary Processing Technique	Injection Molding	

## Contact Songhan Plastic Technology Co.,Ltd.

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