

## BASF Ultramid® B3UGM210 GR 22866 10/50% Glass/Mineral Filled PA6 FR (Dry)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Glass/Mineral Reinforced

### Material Notes:

Description: Halogen- and phosphorus-free injection-molding grade with very high rigidity, low smoke density and outstanding electrical properties. Information provided by BASF

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_BASF-Ultramid-B3UGM210-GR-22866-1050-GlassMineral-Filled-PA6-FR-Dry.php](http://www.lookpolymers.com/polymer_BASF-Ultramid-B3UGM210-GR-22866-1050-GlassMineral-Filled-PA6-FR-Dry.php)

Physical Properties	Metric	English	Comments
Density	1.67 g/cc	0.0603 lb/in <sup>3</sup>	ISO 1183
Water Absorption	4.1 - 4.7 %	4.1 - 4.7 %	Saturation; ISO 62
Moisture Absorption at Equilibrium	1.0 - 1.4 %	1.0 - 1.4 %	23°C; 50% RH; ISO 62
Linear Mold Shrinkage	0.0050 cm/cm	0.0050 in/in	restricted
Melt Flow	41.75 g/10 min @Load 5.00 kg, Temperature 275 °C	41.75 g/10 min @Load 11.0 lb, Temperature 527 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	110 MPa	16000 psi	50 mm/min; ISO 527-1/-2
Elongation at Yield	1.8 %	1.8 %	50 mm/min; ISO 527-1/-2
Modulus of Elasticity	11.0 GPa	1600 ksi	ISO 527-1/-2
Flexural Strength	165 MPa	23900 psi	at max force; ISO 178
Flexural Modulus	10.0 GPa	1450 ksi	ISO 178
Izod Impact, Notched (ISO)	2.50 kJ/m <sup>2</sup> @Temperature 23.0 °C	1.19 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 180/A
	4.50 kJ/m <sup>2</sup> @Temperature -30.0 °C	2.14 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 180/A
Charpy Impact Unnotched	3.00 J/cm <sup>2</sup> @Temperature -30.0 °C	14.3 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eU
	3.00 J/cm <sup>2</sup> @Temperature 23.0 °C	14.3 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eU

Mechanical Properties <sub>d</sub>	Metric	English	Comments <sub>A</sub>
	0.250 J/cm <sup>2</sup>	1.19 ft-lb/in <sup>2</sup>	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.400 J/cm <sup>2</sup>	1.90 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	40.0 - 60.0 µm/m-°C	22.2 - 33.3 µin/in-°F	DIN 11359-1/-2
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	
CTE, linear, Transverse to Flow	40.0 - 50.0 µm/m-°C	22.2 - 27.8 µin/in-°F	DIN 11359-1/-2
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	
Specific Heat Capacity	1.40 J/g-°C	0.335 BTU/lb-°F	
Thermal Conductivity	1.00 W/m-K	6.94 BTU-in/hr-ft <sup>2</sup> -°F	DIN 52612
Melting Point	220 °C	428 °F	DIN 53765
Maximum Service Temperature, Air	149 °C	300 °F	for 50% loss of tensile strength after 20000hr
	167 °C	333 °F	for 50% loss of tensile strength after 5000hr
	200 °C	392 °F	
Deflection Temperature at 0.46 MPa (66 psi)	215 °C	419 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	195 °C	383 °F	ISO 75-1/-2
Flammability, UL94	V-2	V-2	
	@Thickness >=0.750 mm	@Thickness >=0.0295 in	
	V-0	V-0	
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	IEC 60093
Dielectric Constant	4.5	4.5	IEC 60250
	@Frequency 1.00 Hz	@Frequency 1.00 Hz	
	0.015	0.015	

Electrical Properties	Metric @ Frequency 1.00e+6	English @ Frequency 1.00e+6	IEC 60250 Comments
	Hz	Hz	
Comparative Tracking Index	600 V	600 V	Test solution A; IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	290 - 310 °C	554 - 590 °F	Injection-molding/Extrusion
Mold Temperature	80.0 - 90.0 °C	176 - 194 °F	Injection-molding

Descriptive Properties	Value	Comments
Color	GR 22866	
Commercial Status	Europe	

## Contact Songhan Plastic Technology Co.,Ltd.

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