

BASF Ultramid® 8233G HS BK-102 33% Glass Filled PA6 (Dry)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , 30% Glass Fiber Filled

Material Notes:

Ultramid 8233G HS BK-102 is a heat stabilized, weather resistant, 33% glass fiber reinforced PA6 injection molding compound offering excellent strength, stiffness, high temperature performance and dimensional stability. This balance of engineering properties in combination with excellent processability make it ideal in applications replacing metal, resulting in an overall cost and weight savings.

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Ultramid-8233G-HS-BK-102-33-Glass-Filled-PA6-Dry.php

Physical Properties	Metric	English	Comments
Density	1.39 g/cc	0.0502 lb/in ³	ISO 1183
Water Absorption	1.1 %	1.1 %	24 hour; ISO Test
	6.4 %	6.4 %	ISO 62
Moisture Absorption at Equilibrium	1.8 %	1.8 %	23°C/50% R.H.; ISO 62
Relative Viscosity	2.6 cP	2.6 cP	ISO Test; 96 % SAV
Viscosity Measurement	50	50	Formic Acid
Linear Mold Shrinkage	0.0030 cm/cm	0.0030 in/in	ASTM Data; MD

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	121	121	ASTM Test
Tensile Strength at Break	180 MPa	26100 psi	0.2 in/min; ASTM Test
	70.0 MPa	10200 psi	ASTM Test
	@Temperature 120 °C	@Temperature 248 °F	
	70.0 MPa	10200 psi	ISO Data
	@Temperature 120 °C	@Temperature 248 °F	
	90.0 MPa	13100 psi	ISO Data
	@Temperature 80.0 °C	@Temperature 176 °F	
	90.0 MPa	13100 psi	ASTM Test
	@Temperature 80.0 °C	@Temperature 176 °F	
	230 MPa	33400 psi	ASTM Test
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	230 MPa	33400 psi	

Mechanical Properties	Metric @ Temperature -40.0 °C	English @ Temperature -40.0 °F	ISO Data Comments
Tensile Strength, Ultimate	170 MPa	24700 psi	5mm/min; ISO 527
Elongation at Break	3.0 %	3.0 %	5mm/min; ISO 527
	3.5 %	3.5 %	0.2 in/min; ASTM Test
Tensile Modulus	10.2 GPa	1480 ksi	1mm/min; ISO 527
	4.01 GPa	582 ksi	ISO Data
	@Temperature 120 °C	@Temperature 248 °F	
	4.82 GPa	699 ksi	ISO Data
	@Temperature 80.0 °C	@Temperature 176 °F	
	10.3 GPa	1490 ksi	ISO Data
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Flexural Strength	245 MPa	35500 psi	ISO Data
	280 MPa	40600 psi	ASTM Test
Flexural Modulus	8.50 GPa	1230 ksi	ISO Data
	8.99 GPa	1300 ksi	ASTM Test
Izod Impact, Notched	1.10 J/cm	2.06 ft-lb/in	ASTM Test
	@Thickness 3.17 mm	@Thickness 0.125 in	
Charpy Impact Unnotched	6.50 J/cm²	30.9 ft-lb/in²	ISO 179
Charpy Impact, Notched	1.00 J/cm²	4.76 ft-lb/in²	ISO 179
	1.00 J/cm²	4.76 ft-lb/in²	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	38.0 µm/m-°C	21.1 µin/in-°F	ASTM Test
	@Temperature -30.0 - 30.0 °C	@Temperature -22.0 - 86.0 °F	
Melting Point	220 °C	428 °F	10 K/min
	220 °C	428 °F	ASTM Test
Deflection Temperature at 0.46 MPa (66 psi)	215 °C	419 °F	ISO 75
	218 °C	424 °F	ASTM Test

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	205 °C	401 °F	ISO 75
	208 °C	406 °F	ASTM Test
Flammability, UL94	HB	HB	
	@Thickness 0.710 mm	@Thickness 0.0280 in	
	HB	HB	
	@Thickness 3.00 mm	@Thickness 0.118 in	

Processing Properties	Metric	English	Comments
Melt Temperature	275 °C	527 °F	Injection molding
Mold Temperature	95.0 °C	203 °F	Injection molding

Descriptive Properties	Value	Comments
Color	BK-102	
Commercial Status	Active America	
Form	Pellets	
Impact Modified	No	
Primary Processing Technique	Injection Molding	
Processing	Injection Molding	
Special characteristic	Heat stabilized or stable to heat	
UL-UL-C	Yes	

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