Product Information **Ultramid®**

8333G HI HS BK102

10/2023 **PA6-GF33**

Product description

Ultramid® 8333G HI HS BK102 is a 33% glass reinforced, impact modified PA6 injection molding compound pigmented black developed for applications requiring improved dry as molded toughness in combination with a balance of strength, stiffness and excellent moldability/surface aesthetics.

Ultramid® 8333G HI HS BK102 is generally recommended for application such as front wheel chair wheels, bicycle wheels, power tool housings, chain saw housings, clips and fasteners, hose clamps and window hardware.

Injection Molding

PROCESSING
injection molding, Melt temperature, range 270 - 295
injection molding, Mold temperature, range 80 - 95

Material Handling

Max. Water content: 0.08%

Material is supplied in sealed containers and drying prior to molding in a dehumidifying or desiccant dryer is recommended. Drying parameters are dependent upon the actual percentage of moisture in the pellets and typical pre-drying conditions are 2-4 hours at 180F (83C). Further information concerning safe handling procedures can be obtained from the Safety Data Sheet (MSDS), or by contacting your BASF representative.

Note

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Product Information

We create chemistry

Typical values for uncoloured product at 23 °C[1)]	Test method	Unit	Values[2)]
Properties			**dry / cond.**
Polymer abbreviation	-	-	**PA6-GF33**
Filler content: Glass fiber (GF), glass balls (GB), Mineral (M)	-	%	**GF33**
Density	ISO 1183	kg/m³	**1340 / -**
Water absorption, 24 h in water, 23 °C	ISO 62	%	**0.9**
Moisture absorption, equilibrium 23°C/50% r.h.	similar to ISO 62	%	**1.5**
Water absorption, equilibrium in water at 23°C	similar to ISO 62	%	**5.5**
Processing			**dry / cond.**
Melt temperature, Injection moulding/Extrusion	-	°C	**270 - 295**
Mould temperature, Injection moulding	-	°C	**80 - 95**
Injection molding cylinder temperature 1 (feed zone)	-	°C	**245 - 275**
Injection molding cylinder temperature 2 (compression)	-	°C	**260 - 285**
Injection molding cylinder temperature 3 (metering-zone, head room of screw)	-	°C	**270 - 295**
Injection molding cylinder temperature 4 (die)	-	°C	**270 - 295**
Flammability			
Burning Behav. at 1.5 mm nom. thickn.	IEC 60695-11-10	class	**HB**
Burning Behav. at thickness d = 0.81 mm	IEC 60695-11-10	class	**HB**
UL 94 rating at 3 mm thickness	UL-94, IEC 60695	class	**HB**
RTI, electrical, d = 0.8 mm	UL-746B	°C	**140**
RTI, electrical, d = 1.6 mm	UL-746B	°C	**140**
RTI, electrical, d = 3.2 mm	UL-746B	°C	**140**
RTI, mechanical, under impact stress, d = 1.6 mm	UL-746B	°C	**115**
RTI, mechanical, under impact stress, d = 3.2 mm	UL-746B	°C	**120**
RTI, mechanical, without impact stress, d = 0.8 mm	UL-746B	°C	**130**
RTI, mechanical, without impact stress, d = 1.6 mm	UL-746B	°C	**140**
RTI, mechanical, without impact stress, d = 3.2 mm	UL-746B	°C	**140**
Mechanical properties			**dry / cond.**
Tensile modulus	ISO 527-1/-2	MPa	**9250 / -**
Yield stress, 50 mm/min	ISO 527-1/-2	MPa	**137 / -**
Yield strain, 50 mm/min	ISO 527-1/-2	%	**2.4 / -**
Flexural strength	ISO 178	MPa	**210 / -**
Flexural modulus	ISO 178	MPa	**8460 / -**
Charpy unnotched impact strength (23°C)	ISO 179/1eU	kJ/m²	**68 / -**
Charpy notched impact strength (23°C)	ISO 179/1eA	kJ/m²	**15 / -**
Charpy notched impact strength (-30°C)	ISO 179/1eA	kJ/m²	**10 / -**
Izod notched impact strength (23°C)	ISO 180/A	kJ/m²	**16 / -**
Izod notched impact strength (-40°C)	ISO 180/A	kJ/m²	**13 / -**
Thermal properties			**dry / cond.**
Melting temperature, DSC	ISO 11357-1/-3	°C	**217**
HDT A (1.80 MPa)	ISO 75-1/-2	°C	**201**
HDT B (0.45 MPa)	ISO 75-1/-2	°C	**220**

Footnotes
1) If product name or properties don't state otherwise.
2) The asterisk symbol '*' signifies inapplicable properties.

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