Product description

Ultramid® B3EG6 CCYD4 UN is a 30% glass fiber reinforced injection molding PA6 grade.

Typical applications include industrial articles and electrical insulating parts.

Injection Molding

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

Material Handling

Max. Water content: 0.15%

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). Recommended moisture levels for achieving optimum surface qualities and mechanical properties is 0.05% - 0.12%. Further information concerning safe handling procedures can be obtained from the Safety Data Sheet (MSDS), or by contacting your BASF representative.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.
In order to check the availability of products please contact us or our sales agency.

Ultramid® B3EG6 CCYD4 UN

Product Information

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Typical values for uncoloured product at 23 °C[1]	Test method	Unit	Values[2]
Properties			**dry / cond.**
Polymer abbreviation	-	-	**PA6-GF30**
Filler content: Glass fiber (GF), glass balls (GB), Mineral (M)	-	%	**GF30**
Density	ISO 1183	kg/m³	**1360 / -**
Moisture absorption, equilibrium 23°C/50% r.h.	similar to ISO 62	%	**2.1**
Water absorption, equilibrium in water at 23°C	similar to ISO 62	%	**6.6**
Processing			**dry / cond.**
Melt volume-flow rate MVR at 235 °C and 5 kg	ISO 1133	cm³/10min	**50**
Melt temperature, Injection moulding/Extrusion	-	°C	**270 - 295**
Mould temperature, Injection moulding	-	°C	**80 - 95**
Flammability			
Burning Behav. at 1.5 mm nom. thickn.	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	**120**
RTI, electrical, d = 1.6 mm	UL-746B	°C	**120**
RTI, electrical, d = 3.2 mm	UL-746B	°C	**120**
RTI, mechanical, under impact stress, d = 1.6 mm	UL-746B	°C	**95**
RTI, mechanical, under impact stress, d = 3.2 mm	UL-746B	°C	**95**
RTI, mechanical, without impact stress, d = 1.6 mm	UL-746B	°C	**130**
RTI, mechanical, without impact stress, d = 3.2 mm	UL-746B	°C	**130**
Mechanical properties			**dry / cond.**
Tensile modulus	ISO 527-1/-2	MPa	**9500 / 6200**
Yield stress, 50 mm/min	ISO 527-1/-2	MPa	**185 / 115**
Yield strain, 50 mm/min	ISO 527-1/-2	%	**3.5 / 8**
Flexural strength	ISO 178	MPa	**270 / 180**
Flexural modulus	ISO 178	MPa	**8600 / 5000**
Charpy unnotched impact strength (23°C)	ISO 179/1eU	kJ/m²	**95 / 110**
Charpy unnotched impact strength (-30°C)	ISO 179/1eU	kJ/m²	**80 / -**
Charpy notched impact strength (23°C)	ISO 179/1eA	kJ/m²	**15 / 30**
Charpy notched impact strength (-30°C)	ISO 179/1eA	kJ/m²	**11 / -**
Izod notched impact strength (23°C)	ISO 180/A	kJ/m²	**15 / 20**
Thermal properties			**dry / cond.**
Melting temperature, DSC	ISO 11357-1/-3	°C	**220**
HDT A (1.80 MPa)	ISO 75-1/-2	°C	**210**
HDT B (0.45 MPa)	ISO 75-1/-2	°C	**220**
Coefficient of linear thermal expansion, longitudinal (23-80)°C	ISO 11359-1/-2	E-6/K	**23**
Coefficient of linear thermal expansion, transverse(23-80)°C	ISO 11359-1/-2	E-6/K	**65**
Electrical properties			**dry / cond.**
Volume resistivity	IEC 62631-3-1	Ohm*m	**1E13 / 1E10**
Dissipation factor (100 Hz)	IEC 62631-2-1	E-4	**230 / 2200**
Relative permittivity (1 MHz)	IEC 62631-2-1	-	**3.8 / 6.8**
Dissipation factor (1 MHz)	IEC 62631-2-1	E-4	**230 / 220**