Ultramid®

A3HG6 BalanceR01 bk 23591

(PA66+PA610) - GF30

□ BASF

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Product description

Glass fiber reinforced and modified PA66 injection moulding grade with good calcium chloride resistance, as well as hydrolysis resistance and special stress cracking resistance for automotive applications: radiator end cap, oil filter housing and thermostat housing.

Physical form and storage

The product is supplied dry and ready to use in moisture-proof packaging. The material is in the form of cylindrical or flat pellets. Its bulk density is about 0,7 g/cm³. Standard packs are the special 25 kg bag and the 1000 kg bulk container (octagonal IBC=intermediate bulk container made from corrugated board with a liner bag). Subject to agreement other forms of packaging and shipment in tankers by road or rail are also possible. All containers are tightly sealed and should be opened only immediately prior to processing. To ensure that the perfectly dry material delivered cannot absorb moisture from the air the containers must be stored in dry rooms and always carefully sealed again after some of the material has been withdrawn. Ultramid® can be stored for a longer period of time in dry, well vented rooms without any change to properties. After longer storage times (> 3 months for IBC or > 2 years for bags) or if material from previously opened containers is used, drying is recommended to remove absorbed moisture. Containers stored in cold rooms should be allowed to equalise to normal temperature so that no condensation forms on the pellets.

Product safety

In case processing is done under conditions as recommended (cf. processing data sheet) melts are thermally stable and do not generate hazards by molecular degradation or the evolution of gases and vapors. Like all thermoplastic polymers the product decomposes on exposure to excessive thermal load, e.g. when it is overheated or as a result of cleaning by burning off. Further information is available from the safety data sheet.

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.

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Preliminary Datasheet [3)]

Typical values for uncoloured product at 23 °C[1)]	Test method	Unit	Values[2)]
Properties			
Polymer abbreviation	-	-	**(PA66+PA610) - GF30**
Viscosity number (0.5% in 96 % H_2SO_4)	ISO 307, 1157, 1628	cm³/g	**160**
Processing			
Melting temperature, DSC	ISO 11357-1/-3	°C	**260**
MVR 275 °C/5 kg	ISO 1133	cm³/10min	**10**
Melt temperature, injection moulding/extrusion	-	°C	**280 - 300**
Mould temperature, injection moulding	ISO 294	°C	**80 - 100**
Mechanical properties			**dry / cond.**
Tensile modulus	ISO 527-1/-2	MPa	**9800 / 6800**
Stress at break	ISO 527-1/-2	MPa	**180 / 115**
Strain at break	ISO 527-1/-2	%	**3.6 / 5.9**
Flexural modulus	ISO 178	MPa	**8800 / 6200**
Flexural strength	ISO 178	MPa	**270 / 180**
Charpy unnotched impact strength (23°C)	ISO 179/1eU	kJ/m²	**98 / 85**
Charpy unnotched impact strength (-30°C)	ISO 179/1eU	kJ/m²	**80 / 75**
Charpy notched impact strength (23°C)	ISO 179/1eA	kJ/m²	**12.4 / 12.9**
Charpy notched impact strength (-30°C)	ISO 179/1eA	kJ/m²	**8 / 7.4**
Thermal properties			
HDT A (1.80 MPa)	ISO 75-1/-2	°C	**245**
HDT B (0.45 MPa)	ISO 75-1/-2	°C	**265**