Product Information Ultramid®

T KR 4357 G6



09/2025

PA6T/6-I-GF30

Product Information

Glass fibre reinforced, impact modified, partially aromatic polyamide for injection molding. High toughness, stiffness and strength, low water absorption, high melting point (295°C).

Physical form and storage

The product is supplied in the form of granules with a bulk density of approx. 0.7 g/cm³. Standard packs are bag and bulk container (octagonal IBC=intermediate bulk container made from corrugated board with a liner bag). Other packaging materials and shipping in road or rail silo wagons are possible by agreement. The containers should only be opened immediately before processing or drying. To ensure that the delivered product absorbs as little moisture as possible, the containers should be stored in dry rooms and always carefully closed again after partial quantities have been withdrawn. In principle, the product can be stored for a long period of time. Containers stored in cold rooms should be equalized to ambient temperature before opening in order to avoid condensation on the granules. Regardless of the storage conditions, the product should be pre-dried according to our recommendations and the machine should preferably be loaded using a closed conveyor system.

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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Typical values for uncoloured product at 23 °C¹)	Test method	Unit	Values ²⁾
Properties			
Polymer abbreviation Density Viscosity number (0.5% in 96% H ₂ SO ₄) Water absorption, saturation in water at 23°C Moisture absorption, equilibrium 23°C/50% r.h.	ISO 1183 ISO 307, 1157, 1628 similar to ISO 62 similar to ISO 62	- kg/m³ cm³/g % %	PA6T/6-I-GF30 1370 130 4 - 5 0.6 - 1.7
Processing			
Melting temperature, DSC Melt temperature, injection moulding/extrusion Mould temperature, injection moulding Moulding shrinkage, constrained ³⁾ Molding shrinkage (parallel) Molding shrinkage (normal)	ISO 11357-1/-3 - - - ISO 294-4 ISO 294-4	°C °C % %	295 310 - 330 80 - 120 0.35 0.40 1.00
Flammability			
UL94 flammability rating at nominal 1.5 mm (thickness tested) Yellow Card available UL94 flammability rating (thickness tested) Yellow Card available Automotive materials (Thickness 1 mm) 4)	IEC 60695-11-10 - IEC 60695-11-10 - ISO 3795, FMVSS 302	class (mm) - class (mm)	HB (1.6) yes HB (0.75) yes +
Mechanical properties dry / cond.			
Tensile modulus Stress at break Strain at break Tensile creep modulus, 1000 h, strain 0.5%, 23°C Charpy unnotched impact strength (23°C) Charpy notched impact strength (23°C) Izod notched impact strength (23°C)	ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 899-1 ISO 179/1eU ISO 179/1eA ISO 180/A	MPa MPa % MPa kJ/m² kJ/m² kJ/m²	9300 / 9000 165 / 145 3.5 / - * / 6500 95 / - 17 / -
Thermal properties			
Deflection temp. under load 1.8 MPa (HDT A) Max. service temperature (short cycle operation) Temperature index at 50% loss of tensile strength after 5000 h Temperature index at 50% loss of tensile strength after 20000 h Coefficient of linear thermal expansion, longitudinal (23-55)°C Coefficient of linear thermal expansion, transverse (23-55)°C Thermal conductivity Specific heat capacity	ISO 75-1/-2 - IEC 60216 IEC 60216 ISO 11359-1/-2 ISO 11359-1/-2 DIN 52612-1	°C °C °C E-6/K E-6/K U/(m K) J/(kg*K)	240 270 160 130 22.5 65 0.25 1400
Electrical properties			dry / cond.
Relative permittivity (1 MHz) Dissipation factor (1 MHz) Volume resistivity Surface resistivity Comparative tracking index, CTI, test liquid A	IEC 62631-2-1 IEC 62631-2-1 IEC 62631-3-1 IEC 62631-3-2 IEC 60112	- E-4 Ohm*m Ohm -	4.3 / 4.5 300 / 400 1E13 / 1E12 1E13 / 1E13 600

Footnotes

Footnotes

1) If product name or properties don't state otherwise.

2) The asterisk symbol '*' signifies inapplicable properties.

3) Test box with central gating, dimensions of base (107*47*1,5) mm, processing condition: TM = 320°C (unreinforced) or 330°C (reinforced), TW = 80°C

4) + = passed