Preliminary Datasheet

Ultramid®

A3WGM33 BK 20560

09/2009

PA66-(GF15+M15)

BASF The Chemical Company

Product description

Combined glass fibre and mineral reinforced injection moulding grade for high stiffness parts with good dimensional stability and surface finish, such as for automotive cylinder-head cover.

Product safety

Ultramid® melts are thermally stable at the usual temperature for PA66, PA6 and PA66/6 up to 310°C and 350°C for PA6/6T and do not give rise to hazards due to molecular degradation or the evolutionon of gases and vapors. Like all thermoplastic polymers Ultramid® decomposes on exposure to excessive thermal load, e.g. when it is overheated or as a result of cleaning by burning off. In such cases gaseous decomposition products are formed. Decomposition accelerates above 310°C (PA6/6T >350°C) approximately, the initial products formed being mainly carbon monoxide and ammonia, and caprolactam too in the case of Ultramid® PA6. At temperatures above about 350°C (PA6/6T>400°C) small quantities of pungent smelling vapors of aldehydes, amines and other nitrogenous decomposition products are also formed.
Further safety information see safety data sheet of the individual product.

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 [4)]

Typical values for uncoloured product at 23 °C[1)]	Test method[2)]	Unit	Values[3)]
Properties			
Polymer abbreviation	-	-	**PA66-(GF15+M15)**
Density	ISO 1183	kg/m³	**1360**
Moisture absorption, equilibrium 23°C/50% r.h.	similar to ISO 62	%	**1.7**
Water absorption, saturation in water at 23°C	similar to ISO 62	%	**5.5**
Processing			
Melt temperature, injection moulding/extrusion	-	°C	**280 - 290**
Mould temperature, injection moulding	-	°C	**80 - 90**
Mechanical properties			**dry / cond.**
Tensile modulus	ISO 527-1/-2	MPa	**9900 / -**
Stress at break	ISO 527-1/-2	MPa	**150 / -**
Strain at break	ISO 527-1/-2	%	**3 / -**
Flexural modulus	ISO 178	MPa	**8800 / -**
Flexural strength	ISO 178	MPa	**220 / -**
Charpy unnotched impact strength (23°C)	ISO 179/1eU	kJ/m²	**60 / -**
Charpy notched impact strength (23°C)	ISO 179/1eA	kJ/m²	**7 / -**
Thermal properties			
HDT A (1.80 MPa)	ISO 75-1/-2	°C	**245**

Footnotes
1) If product name or properties don't state otherwise.
2) Specimens according to CAMPUS.
3) The asterisk symbol '*' signifies inapplicable properties.
4) The typical values of preliminary datasheets are not statistically firm.

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