

#### Product description

Glass fibre reinforced and heat ageing resistant injection moulding grade used e.g. for automobile manifolds and pedals.

#### Physical form and storage

The product is supplied dry and ready to use in moisture-proof packaging in the form of cylindrical or flat pellets. Its bulk density is about 0,7g/cm<sup>3</sup>. Standard packs are the special 25kg bag and the 1000kg 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air the containers must be stored in dry rooms and always carefully sealed again after portions of material have been withdrawn. The product can be kept indefinitely in the undamaged bags. Experience has shown that product supplied in IBCs can be stored for about 3 months without any adverse effects on processing properties due to moisture absorption. Containers stored in cold rooms should be allowed to equilibrate 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.

## Processing Data Sheet

	Test method	Unit	Values
<b>Properties</b>			
Polymer abbreviation	-	-	<b>PA6-GF30</b>
Density	ISO 1183	kg/m <sup>3</sup>	<b>1360</b>
Melt volume rate MVR 275 °C/5 kg	ISO 1133	cm <sup>3</sup> /10min	<b>30</b>
<b>Drying</b>			
Moisture, max.	-	%	<b>0.15</b>
Moisture, optimal <sup>1)</sup>	-	%	<b>0.03 - 0.06</b>
Dryer temperature <sup>2)</sup>	-	°C	<b>80</b>
Drying time <sup>3)</sup>	-	h	<b>4</b>
<b>Injection molding</b>			
Melt temperature range	-	°C	<b>270 - 290</b>
Melt temperature, optimal	-	°C	<b>280</b>
Mold temperature range	-	°C	<b>80 - 90</b>
Mold temperature, optimal	-	°C	<b>80</b>
Residence time, max.	-	min	<b>10</b>
<b>Machine Settings</b>			
Temperature hopper throat	-	°C	<b>80</b>
Cylinder temperature 1 (feed zone)	-	°C	<b>260</b>
Cylinder temperature 2 (compression)	-	°C	<b>270</b>
Cylinder temperature 3 (metering-zone, in front of the screw)	-	°C	<b>280</b>
Cylinder temperature 4 (nozzle)	-	°C	<b>280</b>
Peripheral screw speed	-	m/s	<b>0.3</b>
<b>Shrinkage</b>			
Molding shrinkage (parallel)	ISO 2577, 294-4	%	<b>0.27</b>
Molding shrinkage (normal)	ISO 2577, 294-4	%	<b>0.75</b>
Processing shrinkage, constrained, longitudinal (TM = 280 °C, TW = 80 °C) <sup>4)</sup>	-	%	<b>0.35</b>

### Footnotes

- 1) Excessive drying of the granules may lead to an increase of melt viscosity during processing.
- 2) Dry air dryer; drying time is dependent on the initial moisture content of the granules, drying temperature and the dew point of the dried air.
- 3) In case of improper storage (e.g. open packages) drying time may have to be extended.
- 4) Model housing with central sprue, measures of the base: 107 x 47 x 1.5 mm.