

Product description

Very free-flowing, rapidly solidifying grade for use where processing is extremely difficult but mechanical properties are lower.

Abbreviated designation according to ISO 1043: POM
Designation according to ISO 9988-1: POM-K, M-GNR, 05-002

Physical form and storage

POM is supplied in the form of granules having a bulk density of approx. 850 g/l. Standard pack is the 25 kg PE bag. POM is not subject to change when it is stored in dry, ventilated rooms. After relatively long storage (>1 year) or when handling material from previously opened containers, preliminary drying is recommended in order to remove any moisture which has been absorbed.

Product safety

POM is not a hazardous material as defined in the German Ordinance on Hazardous Materials.

If POM is processed properly little or no formaldehyde occurs in the region of the processing machine. Measures should be taken to ensure ventilation and venting of the work area, preferably by means of an extraction hood over the barrel unit.

POM decomposes when subjected to excessive heat. The decomposition products formed in this case consist almost exclusively of formaldehyde, a gas which has a pungent smell even at very low concentrations and irritates the mucous membranes. Decomposition can rapidly result in the build-up of a high gas pressure in the barrel of the processing unit. If the die is sealed there may be a sudden release of pressure via the filling hopper.

Contamination of POM by thermoplastics that cause decomposition of polyacetals, e.g. PVC or plastics containing halogenated fire protection agents, must be avoided under all circumstances. Even small quantities can cause uncontrolled and rapid decomposition of POM during processing.

Pellets and finished parts must not be allowed to come into contact with strong acids (especially concentrated hydrochloric acid) since they cause POM to decompose.

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.

Preliminary Datasheet ⁴⁾

Typical values for uncoloured product at 23 °C ¹⁾	Test method ²⁾	Unit	Values ³⁾
Properties			
Polymer abbreviation	-	-	POM
Density	ISO 1183	kg/m ³	1400
Processing			
Processing: Injection moulding (M), Extrusion (E), Blow moulding (B)	-	-	M
Melting temperature, DSC	ISO 11357-1/-3	°C	167
Melt volume-flow rate MVR at 190 °C and 2.16 kg	ISO 1133	cm ³ /10min	25
Melt temperature, injection moulding	-	°C	190 - 230
Mould temperature, Injection moulding	-	°C	60 - 100
Mechanical properties			
Tensile modulus	ISO 527-1/-2	MPa	2500
Yield stress, 50 mm/min	ISO 527-1/-2	MPa	63
Yield strain, 50 mm/min	ISO 527-1/-2	%	9
Nominal strain at break, 50 mm/min	ISO 527-1/-2	%	24
Charpy unnotched impact strength (23°C)	ISO 179/1eU	kJ/m ²	150
Charpy notched impact strength (23°C)	ISO 179/1eA	kJ/m ²	5

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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