

CELSTRAN® POM-GF25-04 AF3001

Developmental 25% long glass fiber filled acetal copolymer

Material code according to ISO 1043-1: POM

Acetal copolymer reinforced with 25 weight percent long glass fibers. The fibers are chemically coupled to the POM matrix. The pellets are cylindrical and normally as well as the embedded fibers 10 mm long.

Parts molded of CELSTRAN have outstanding mechanical properties such as high strength and stiffness combined with high heat deflection. The notched impact strength is increased at elevated and low temperatures due to the fiber skeleton built in the parts. The long fiber reinforcement reduces creep significantly.

The very isotropic shrinkage in the molded parts minimizes the warpage.

Complex parts can be manufactured with high reproducibility by injection molding.

Application field: Functional/structural parts for automotive

Typical mechanical properties

Tensile Modulus	10300 MPa	ISO 527-1/-2
Stress at break, 50mm/min	177 MPa	ISO 527-1/-2
Strain at break, 5mm/min	2.35 %	ISO 527-1/-2
Flexural Modulus	9190 MPa	ISO 178
Flexural Strength	265 MPa	ISO 178
Charpy notched impact strength, 23°C	35 kJ/m ²	ISO 179/1eA

Other properties

Density	1590 kg/m ³	ISO 1183
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Injection

Drying Temperature	80 - 90 °C
Drying Time, Dehumidified Dryer	3 h
Processing Moisture Content	0.15 %
Screw tangential speed	0.1 m/s
Max. mould temperature	70 - 110 °C
Back pressure	3 MPa
Injection speed	medium

Processing Texts

Pre-drying It is normally not necessary to dry CELSTRAN POM. However, should there be surface moisture (condensate) on the molding compound as a result of incorrect storage, drying is required. A circulating air drying cabinet can be used for this purpose if the gra

Longer pre-drying times/storage The product can then be stored in standard conditions until processed.