

Application purpose and characteristics

Mechanical engineering, drive and material handling technology, precision engineering, automotive industry, aircraft and aerospace technology, electrical engineering, food technology

Good "stick-slip" properties, high strength, electrically insulating, high toughness, good chemical resistance, difficult to bond, good machinability, not hot water resistant over 60°C

Material name, short description	POM-H
Material name, based on technical standards	Polyoxymethylene homopolymer
Density	1.49 g/cm ³
Color	dark brown
Compound code	POM-H SL.002-00
Compound	POM-H + solid lubricant PTFE

Thermal attributes

Max. operating temperature long term	110 °C
Max. operating temperature short term	150 °C
Coefficient of linear thermal expansion 1	120 * 10 ⁻⁶ K ⁻¹ DIN EN ISO 11359-1,-2 23 - 60 °C, longitudinal
Coefficient of linear thermal expansion 2	130 10 ⁻⁶ K ⁻¹ DIN EN ISO 11359-1,-2 23 - 100 °C, longitudinal
Crystalline melting point	179 °C DIN EN ISO 11357
Glass transition temperature	-60 °C DIN EN ISO 11357
Heat deflection temperature 1	141 °C ISO-R 75 Method A
Specific heat capacity	1.3 J/(g·K) ISO 22007-4 2008
Thermal conductivity	0.46 W/(m·K) ISO 22007-4 2008

Electrical attributes

Surface resistivity	10 ¹⁴ Ω DIN IEC 60093
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Other attributes

Water absorption	0.05 % DIN EN ISO 62 24 h, 23 °C
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In compliance with **RoHS** and **REACH** directives.

This information is based on our available data. These values are measured on standard test specimens and are within the normal tolerance range of material properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. The customer is solely responsible for quality and suitability of material for his application. He has to test usage and processing prior to use. Angst+Pfister makes no guarantees for the suitability of the material for any given application and assumes no obligation or liability in connection with the information provided above.

Mechanical properties

Modulus of elasticity & tension 1	3000 N/mm ² DIN EN ISO 527-2 1 mm / min
Tensile strength	53 N/mm ² DIN EN ISO 527-2 50 mm / min
Yield stress	53 N/mm ² DIN EN ISO 527-2 50 min / min
Elongation at break	8 % DIN EN ISO 527-2 50 mm / min
Elongation at yield	8 % DIN EN ISO 527-2 50 mm / min
Flexural modulus of elasticity	3000 N/mm ² DIN EN ISO 178 2 mm / min, 10 N
Modulus of pressure	2400 N/mm ² 5 mm / min, 10 N
Bending strength 1	85 N/mm ² DIN EN ISO 178 2 mm / min, 10 N
Compressive strength 1	19 N/mm ² EN ISO 604 at 1% deformation (5 mm/min, 10 N)
Compressive strength 2	33 N/mm ² EN ISO 604 at 2% deformation (5 mm/min, 10 N)
Compressive strength 3	67 N/mm ² EN ISO 604 at 5% deformation (5 mm/min, 10 N)
Ball indentation hardness	166 N/mm ² ISO 2039-1
Impact strength	no break DIN EN ISO 179-1eU max. 7.5 J
Notch impact strength	25.00 kJ/m ² DIN EN ISO 179-1eA max. 7.5 J

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