

APSOplast® POM-H natural (white)

Engineering Plastic Technology Technical Data Sheet

Application purpose and characteristics

Mechanical engineering, fixture construction, drive and material handling technology, precision engineering, automotive industry, electrical engineering, domestic appliance, food technology

Good "stick-slip" properties, high strength, electrically insulating, high chemical resistance, not adhesive, good machinability and polishability, not hot water resistant over 60°C

Product description

Material name, long description	Polyoxymethylene homopolymer
Material name, short description	POM-H
Material Code	POM-H 00.002-00
Density	1.43 g/cm³
Color	natural (white)

Mechanical properties

Modulus of elasticity and tension	Test value: 3400 MPa Test norm: DIN EN ISO 527-2 Test parameter: 1 mm/min
Tensile strength	Test value: 79 MPa Test norm: DIN EN ISO 527-2 Test parameter: 50 mm/min
Yield stress	Test value: 37 % Test norm: DIN EN ISO 527-2 Test parameter: 50 mm/min
Elongation at yield	Test value: 45 % Test norm: DIN EN ISO 527-2 Test parameter: 50 mm/min
Elongation at break	Test value: 3600 MPa Test norm: DIN EN ISO 178 Test parameter: 2 mm/min, 10 N
Flexural modulus of elasticity	Test value: 106 MPa Test norm: DIN EN ISO 178 Test parameter: 2 mm/min, 10 N
Bending strength	Test value: 2700 MPa Test norm: EN ISO 604 Test parameter: 5 mm/min, 10 N
Modulus of pressure	Test value: 19 MPa N/mm² Test norm: EN ISO 604 Test parameter: at 1% deformation (5 mm/min, 10 N)
Compressive strength	Test value: 33 MPa N/mm² Test norm: EN ISO 604 Test parameter: bei 2% zul. Verformung (5 mm/min, 10 N)
Notch impact strength	Test value: 15 kJ/m² Test norm: DIN EN ISO 179-1eA Test parameter: Charpy, max. 7.5J
Ball indentation hardness	Test value: 185 MPa Test norm: ISO 2039-1

Thermal properties

Max. operating temperature long term	Test value: 110 °C
Max. operating temperature short term	Test value: 150 °C
Glass transition temperature	Test value: -60 °C Test norm: DIN 53765
Crystalline melting point	Test value: 182 °C Test norm: DIN 53765
Thermal expansion	Test value: 12 10 ⁻⁵ K ⁻¹ Test norm: DIN EN ISO 11359-1,-2 Test parameter: 23-60°C, lengthwise Test value: 13 10 ⁻⁵ K ⁻¹ Test norm: DIN EN ISO 11359-1,-2
Specific heat capacity	Test value: 1.3 J/g·K Test norm: ISO 22007-4 2008
Thermal conductivity	Test value: 0.43 W/m·K Test norm: ISO 22007-4 2008

Electrical properties

Surface resistivity	Test value: 10 ¹⁴ Ohm Test norm: DIN IEC 60093
---------------------	--

Other properties

Flammability	Test value: HB Test norm: DIN IEC 60695-11,-10 Test parameter: UL94
Water absorption at saturation	Test value: 0.05 / 0.1 % Test norm: DIN EN ISO 62 Test parameter: 24h / 96h (23°C)

Approvals

- FDA 21 CFR 177.2480
- 1935/2004 EC
- 10/2011 EU
- GMP 2023/2006 EC



EC No.1935:2004

