Angst+Pfister

APSOplast® POM-H SL dark brown

Engineering Plastic Technology
Technical Data Sheet

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

Product description

Material name, long description	Polyoxymethylene homopolymer
Material name, short description	POM-H
Compound	POM-H + solid lubricant PTFE
Material Code	POM-H SL.002-00
Density	1.49 g/cm³
Color	dark brown

Mechanical properties	
Modulus of elasticity and tension	Test value: 3000 MPa Test norm: DIN EN ISO 527-2 Test parameter: 1 mm / min
Tensile strength	Test value: 53 MPa Test norm: DIN EN ISO 527-2 Test parameter: 50 mm / min
Yield stress	Test value: 53 MPa Test norm: DIN EN ISO 527-2 Test parameter: 50 min / min
Elongation at yield	Test value: 8 % Test norm: DIN EN ISO 527-2 Test parameter: 50 mm / min
Elongation at break	
Flexural modulus of elasticity	Test value: 3000 MPa Test norm: DIN EN ISO 178 Test parameter: 2 mm / min, 10 N
Bending strength	Test value: 85 MPa Test norm: DIN EN ISO 178 Test parameter: 2 mm / min, 10 N
Modulus of pressure	Test value: 2400 MPa Test norm: EN ISO 604 Test parameter: 5 mm / min, 10 N
Compressive strength	Test value: 19 MPa Test norm: EN ISO 604 Test parameter: at 1% deformation (5 mm/min, 10 N)
	Test value: 33 MPa Test norm: EN ISO 604 Test parameter: at 2% deformation (5 mm/min, 10 N)
	Test value: 67 N/mm² Test norm: EN ISO 604 Test parameter: at 5% deformation (5 mm/min, 10 N)
Notch impact strength	Test value: 25 kJ/m² Test norm: DIN EN ISO 179-1eA Test parameter: max. 7.5 J
Impact strength	Test value: no break - Test norm: DIN EN ISO 179-1eU Test parameter: max. 7.5 J
Ball indentation hardness	Test value: 166 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 EN ISO 11357
Crystalline melting point	Test value: 179 °C Test norm: DIN EN ISO 11357
Thermal expansion	Test value: 120 10^{-6} K^{-1} Test norm: DIN EN ISO 11359-1,-2 Test parameter: 23 - 60 °C, longitudinal
	Test value: 130 10^{-6} K^{-1} Test norm: DIN EN ISO 11359-1,-2 Test parameter: 23 - 100 °C, longitudinal
Heat deflection temperature	Test value: 141 °C Test norm: ISO-R 75 Method A
Specific heat capacity	Test value: 1.3 J/g·K Test norm: ISO 22007-4 2008
Thermal conductivity	Test value: 0.46 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: IEC 60695-11,-10
Water absorption at saturation	Test value: 0.05 % Test norm: DIN EN ISO 62 Test parameter: 24 h, 23 °C

In compliance with **RoHS** and **REACH** directives.