

## Application purpose and characteristics

Conveyor technology, mechanical engineering, automotive industry, precision engineering, packaging and paper machinery, fixture construction  
High stiffness, strength and toughness, good chemical resistance, difficult to bond, good slide and wear properties, good machinability

Material name, short description	POM-C
Material name, based on technical standards	Polyoxymethylene copolymer
Density	1.41 g/cm <sup>3</sup>
Color	black
Compound code	POM-C 00.002-01

## Mechanical properties

Modulus of elasticity & tension 1	2800 N/mm <sup>2</sup> DIN EN ISO 527-2 1 mm/min
Tensile strength	67 N/mm <sup>2</sup> DIN EN ISO 527-2 50 mm/min
Yield stress	67 N/mm <sup>2</sup> DIN EN ISO 527-2 50 mm/min
Elongation at break	32 % DIN EN ISO 527-2 50 mm/min
Elongation at yield	9 % DIN EN ISO 527-2 50 mm/min
Flexural modulus of elasticity	2600 N/mm <sup>2</sup> DIN EN ISO 178 2 mm/min, 10 N
Modulus of pressure	2300 N/mm <sup>2</sup> 5 mm/min, 10 N
Bending strength 1	91 N/mm <sup>2</sup> DIN EN ISO 178 2 mm/min, 10 N
Compressive strength 1	20 N/mm <sup>2</sup> EN ISO 604 at 1% deformation (5 mm/min, 10 N)
Compressive strength 2	35 N/mm <sup>2</sup> EN ISO 604 at 2% deformation (5 mm/min, 10 N)
Ball indentation hardness	165 N/mm <sup>2</sup> ISO 2039-1
Impact strength	#ErrorkJ/m <sup>2</sup> DIN EN ISO 179-1eU (Charpy) max 7.5 J
Notch impact strength	6 kJ/m <sup>2</sup> DIN EN ISO 179-1eA (Charpy) max 7.5 J

## Thermal attributes

Max. operating temperature long term	100 °C
Max. operating temperature short term	140 °C
Coefficient of linear thermal expansion 1	13 * 10 <sup>-5</sup> K <sup>-1</sup> DIN EN ISO 11359-1,-2 (CLTE) 23-60 °C, longitudinal
Coefficient of linear thermal expansion 2	14 * 10 <sup>-5</sup> K <sup>-1</sup> DIN EN ISO 11359-1,-2 23-100 °C, longitudinal
Crystalline melting point	166 °C DIN 53765
Glass transition temperature	-60 °C DIN 53765
Specific heat capacity	1.4 J/(g·K) ISO 22007-4 2008
Thermal conductivity	0.39 W/(m·K) ISO 22007-4 2008

## Electrical attributes

Comparative tracking index	600 DIN EN 60112 Platinum electrode, 23 °C, 50 % rel. LF, solution A
Dielectric strength 1	38 kV/mm ISO 60243-1 23 °C, 50 % rel. LF
Surface resistivity	10 <sup>14</sup> Ω DIN IEC 60093 Silver electrode, 23 °C, 12 % rel. LF

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.

## Other attributes

Water absorption	0.05 % DIN EN ISO 62 24h (23°C)
Water absorption 2	0.1 % DIN EN ISO 62 96h (23°C)

## Approvals / Compliance

Food & Beverage	FDA CFR 21 - 177.2470 "Polyoxymethylene copolymer" EC No. 1935/2004 incl. last amendments ....
Specific substance statements	ADI free (free of Animal Derived Ingredients) resp. TSE/BSE related substances



EC No.1935:2004



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