

Acetal C

Material Information



Acetal C

Product full identity:

Polyoxymethylene Copolymer / POM C

Acetal Copolymer combines a wide temperature range (-40°C to +105°C) with high surface strength, excellent sliding and wear resistance, and a low risk of cracking. Ideal for bearings, gears, wear guides, and locking systems, it delivers reliable performance in demanding mechanical applications.

Properties

- Good strength and stiffness
- High dimensional stability
- Wide temperature range (+115 to -50 °C)
- Low moisture absorption
- Good sliding properties
- Food contact approved

Applications

- Bearings
- Gears
- Wear guides
- Locking systems

Forms



Solid Rod



Sheet

Acetal C

Technical Properties

Physical	Unit	Test Method	Result
Specific gravity	g/cm ³	ISO 1183-1	1.41
Water absorption until saturation at 23°C	%	ISO 62	0.80
Maximum service temp. Upper temp limit – short term	°C	-	-
Maximum service temp. Upper temp limit – long term	°C	-	100
Lower temp limit	°C	-	-50
Mechanical	Unit	Test Method	Result
Tensile strength	MPa	ISO 527-1/-2	66
Elongation at yield	%	ISO 527-1/-2	15
Tensile strength at break	MPa	ISO 527-1/-2	40
Unnotched impact strength	kJ/m ²	ISO 179-1/1eU	No break
Notch impact strength	kJ/m ²	ISO 179-1/1eA	8
Ball indentation / Rockwell hardness	MPa	ISO 2039-2	84
Shore-D		ISO 868	79
Flexural modulus of elasticity	MPa	ISO 178	2660
Tensile modulus of elasticity	MPa	ISO 527-1/-2	3000
Thermal	Unit	Test Method	Result
Vicat-softening point VST/B/50	°C	-	-
Heat deflection temperature HDT/B	°C	ISO 75-1/-2	100
Coefficient of linear thermal expansion 23 – 100°C	m/(m.K)	-	125 x 10 ⁻⁴
Thermal conductivity at 23°C	W/mK	-	0.31
Electrical	Unit	Test Method	Result
Volume resistivity	Ω x m	IEC 62631-3-1	10 ¹⁴
Surface resistivity	Ω	ANSI/ESD STM 11.11	10 ¹³
Insulation resistivity	Ω . cm	-	-
Dielectric constant at 1MHz		IEC 62631-2-1	3.80
Dielectric loss factor at 1MHz		IEC 62631-2-1	0.008
Dielectric strength	kV/mm	IEC 60243-1	20
Comparative tracking index (CTI)		-	-
Additional Data	Unit	Test Method	Result
Bondability		-	-
Food compliance – FDA		FDA	Yes
Food compliance – EU		EU 10/2011 (Natural & Blue)	On request
Antistatic		-	-
Flammability	Unit	Test Method	Result
Fire performance		UL 94	HB
Optical	Unit	Test Method	Result
N/A	N/A	N/A	N/A

All information provided in this Product Datasheet is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.