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Acetal Copolymer

This proven engineering material has a good combination of all round properties, distinguished by its low moisture absorption, excellent machinability and its resistance to hot water.

- High rigidity
- Good impact resistance
- Low moisture absorption
- Natural white colour
- Continuous working temperature 100°C (max 140°C)
- Good chemical resistance (pH5-11)
- Excellent dimensional stability
- Ideal for close tolerance parts

Application: Pump housings, impellers, gears, bearings, valves, valve seats, domestic appliances, electrical components.

Delivery Programme

Standard Rod 3m long Diameter(mm):	5 (Min)	50 (Max)
Standard Rod 1, 2 & 3m long Diameter(mm):	56 (Min)	250 (Max)
Precision Ground Rod 3m long Diameter(mm):	6 (Min)	50.8 (Max)
Tube 3m long O.D.(mm):	20 (Min)	250 (Max)
I.D.(mm):	10 (Min)	200 (Max)
Sheet 1m wide Length:	1m & 2m	
Thickness (mm):	0.5 (Min)	6.0 (Max)
Plate 610mm wide Length:	1m & 3m	
Thickness (mm):	8 (Min)	100 (Max)

Technical specification

Property	ASTM Test Method	Units	Acetal Copolymer
Colour	-	-	White
Specific Gravity	D792	-	1.41
Water Absorption			
Saturation in water	D570	%	0.8
Tensile Strength	D638	N/mm ²	62
Tensile Modulus	D638	N/mm ²	2795
Elongation	D638	%	>60
Flexural Strength	D790	N/mm ²	90
Flexural Modulus	D790	N/mm ²	2585
Hardness	Rockwell Shore D	-	R120 -
Melt Point	D2117	°C	165
Max allowable service temp in air			
for short periods (1)	-	°C	140
continuously for 20000hrs (2)	-	°C	100
Minimum Service Temperature	-	°C	-50
Linear thermal expansion coefficient	D696	K ⁻¹ x 10 ⁻³	12.5
Thermal Conductivity	C117	W/K.m	0.23
Flammability	D635	-	Slow Burning
UL (thickness in mm)	UL-94	-	HB
Volume Resistivity	D257	Ohm.cm	>10 ¹⁰
Dielectric Strength (3)	D149	kV/mm	>16
Outside applications - UV resistance	-	-	D
Acids - Strong (pH < 3)	-	-	D
Alkalis - Strong (pH > 11)	-	-	C
Chlorinated Hydrocarbons	-	-	A
Hot Water	-	-	C

- (1) Only a few hours, with little or no load applied
 (2) After these periods mechanical properties reduce by approx 50%.
 Note, however, that service temperatures are load and time dependent.
 (3) Test specimen 1.6mm thick unless otherwise stated.

- A' No attack
 B' Mild attack by absorption
 C' Dimensional change due to absorption
 D' Decomposition in short time
 E' In steam - at 160°C, decomposition after short time

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The data are typical values and are not intended to represent specifications. Their aim is to guide the user toward a material choice.