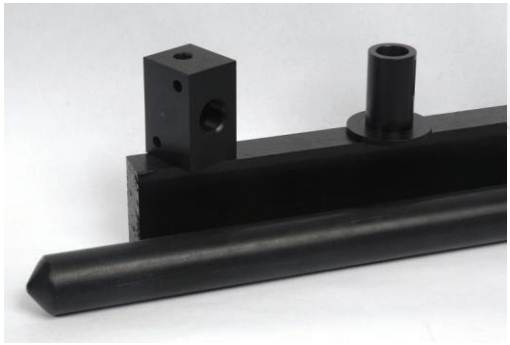
Acetal Sheet, Rod and Tube



Acetal (Delrin®) from Allplastics

Acetal is a hard engineering plastic with high tensile strength and rigidity, excellent machining ability and versatility of application. Acetal has creep resistance and is resistant to hydrolysis, strong alkalis and thermo oxidative degradation. Acetal is suitable for use in components where exceptional strengths is needed for above average temperature or moisture levels.

Key Features:

Strong & rigid
Tough- good impact resistant
Good sliding properties- low stick/slip
Resistant to hot water, dilute acids, cleaning agents and numerous solvents
Very good electrical insulation properties
Easily machined and polished
Difficult to bond
Excellent creep resistance.
Dimensionally more stable than Nylon – lower moisture absorption
Suitable for food contact
Continuous use at 115°C

Applications:

Friction bearings with small tolerances
Gears
Tool supports
Bushes and Flanges
Rollers
Clamps
Plugs
Electrical insulators
Agitators & kneading elements
Electronic + Office machines
Medical parts
Food industry

Availability:

Sheets and Rod, cutting service and machined parts

Colour:	Natural (white) or black. Copolymer grade, Homopolymer grade is made against special orders
Sheet Size (mm):	3000 x 500, 2000 x 1000
Thickness (mm):	0.5 to 100
Rod dia (mm):	10 to 250
Rod / tube length (mm):	3000

Technical Information:

Information to be used as a guide only. It corresponds with our current knowledge and indicates possible applications. We cannot guarantee suitability for a specific application. Unless otherwise stated these values represent averages taken from injection moulded samples.

Properties	Unit	Test Method DIN ASTM	Result
MECHANICAL	-	-	-
Density	g/cm³	53479	1.41
Tensile strength at yield	MPa	53455	65
Tensile strength at break	MPa	53455	-
Elongation at Break	%	53455	40
Modulus of elasticity in tension	MPa	53457	3100
Modulus of elasticity in flexure	MPa	53457	-
Ball indentation hardness	MPa	53456	155
Impact strength (Charpy)	KJ/m²	53453	no break
Creep rupture strength after 1000 hours with static load	MPa	-	40
Time yield limit for 1% elongation after 1000 hours	MPa	-	13
Coefficient of friction against hardened and ground steel p+0,05 N/mm2, v=0,6 m/s	-	-	0.32
Wear conditions as above	µm/km	-	8.9
THERMAL	-	-	-
Crystalline melting point	ºC	53736	165
Glass transition temperature	ºC	53736	-60
Heat distortion temperature method A	ºC	ISO 75	110
Heat distortion temperature method B	ºC	ISO 75	160
Max. service temperature short term	ºC	-	140
Max. service temperature long term	ºC	-	100
Coefficient of thermal conductivity	W/(m K)	-	0.31

Specific heat	J/(g K)	-	1.5
Coefficient of thermal expansion	10-5/K	-	10
ELECTRICAL	-	-	-
Dielectric constant at 10 (5) Hz	-	53483	3.5
Dielectric loss factor at 10(5) Hz	-	53483	0.003
Specific Volume Resistance	Ωcm	53482	10 (15)
Surface Resistance	O	53482	10 (13)
Dielectric strength 1mm	kV/mm	53481	>50
Tracking resistance	-	53480	KA 3c
MISCELLANEOUS	-	-	-
Moisture Absorption: Equilibrium in standard atmosphere (23ºC / 50% relative humidity)	%	53714	0.3
Water absorption at saturation at 23ºC	%	53495	0.5
Resistance to hot water, washing soda	-	-	limited resistance
Flammability	-	UL 94	HB
Resistance to weathering	-	-	Not resistant

ALLPLASTICS
ENGINEERING PTY LTD

Unit 20 / Eastern Valley Way, Chatswood, NSW 2067
Phone: (02) 9417 6111
Fax: (02) 9417 6169
Email: sales@allplastics.com.au

www.allplastics.com.au