

# TECAFORM™

## (Acetal Copolymer)

TECAFORM™ is a semi-crystalline thermoplastic offering high strength, stiffness and toughness. TECAFORM™ is resistant to hot water, hydrocarbons and solvents, and it

possesses good bearing and wear properties. It is available in natural and black grades. TECAFORM™ is commonly used as bushings, rollers,

wear strips and other applications requiring a combination of strength, low moisture absorption, chemical resistance and dimensional stability.

- **No centerline porosity**
- **Low moisture absorption**
- **Excellent machinability**
- **Good combination of mechanical properties**
- **Chemical resistance to fuels and solvents**  
TECAFORM™ is resistant to aqueous solutions with pH values ranging from 4 to 14.
- **Good wear and abrasion properties**
- **Natural grade is manufactured from resins that are FDA, USDA, NSF and 3A Sanitary compliant**
- **Good dimensional stability**
- **Good property retention at elevated temperatures**
- **Black Grades are also manufactured from resin that is FDA compliant**

*TECAFORM™ is used in a wide variety of industrial applications requiring good strength and toughness, dimensional stability, wear resistance and the ability to operate in a wet environment with little absorption. Material handling, machinery and fluid handling are some of the common industries utilizing TECAFORM™'s combination of properties. Typical applications are gears, wear strips, bushings, pump parts, fittings and rollers.*

# TYPICAL PROPERTY VALUES

	PROPERTIES	ASTM Test Method	Units	TECAFORM™
<b>PHYSICAL</b>	Density	D792	lbs/in <sup>3</sup>	0.0507
	Specific Gravity	D792	g/cc	1.41
	Water Absorption, @24 hours, 73°F	D570	%	0.22
	@Saturation, 73°F	D570	%	0.8
<b>MECHANICAL</b>	Tensile Strength @ Yield, 73°F	D638	psi	8,800
	Tensile Modulus	D639	psi	380,000
	Elongation @ Break, 73°F	D638	%	25
	Flexural Strength, 73°F	D790	psi	11,000
	Flexural Modulus, 73°F	D790	psi	360,000
	Compressive Strength	D695	psi	4,500
	Izod Impact Strength, 73°F	D256	ft-lbs/in	1.0
	Rockwell Hardness, 73°F	D785	M Scale	86
	Shore Hardness	-	D Scale	-
	Wear Factor Against Steel, 40 psi, 50 fpm	D3702	$\frac{\text{in}^3}{\text{hr}} \times \frac{1}{\text{PV}}$	$65 \times 10^{-10}$
	Static Coefficient of Friction	D3702	-	-
	Dynamic Coefficient of Friction, 40 psi, 50 fpm	D3702	-	0.21
<b>THERMAL</b>	Heat Deflection Temperature @ 66 psi	D648	°F	316
	@ 264 psi	D648	°F	230
	Coefficient of Linear Thermal Expansion	D696	in/in/°F	$4.7 \times 10^{-5}$
	Maximum Servicing Temperature, Intermittent	-	°F	285
	Long Term	UL746B	°F	195
	Specific Heat	-	BTU/lb-°F	-
	Thermal Conductivity	-	-	-
	Vicat Softening Point	-	°F	-
	Melting Point	D2133	°F	329
	Flammability	UL94	-	HB
<b>ELECTRICAL</b>	Surface Resistivity	D257	ohm/square	-
	Volume Resistivity	D257	ohm-cm	$1.0 \times 10^{14}$
	Dielectric Strength	D149	V/mil	500
	Dielectric Constant, @ 60 Hz, 73°F, 50% RH	D150	-	3.7
	@ 1 MHz	D150	-	-
	@ 20 GHz	D150	-	-
	@ 30 GHz	D150	-	-
	Dissipation Factor, @ 60 HZ, 73°F	D150	-	0.001

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## MATERIAL AVAILABILITY

**Rods:** Diameters: Up to 4 3/4", 10' length  
Length: 5" and greater, 5' length

**Plates:** 1/4" to 2" thickness inclusive are 2' x 4', 4' x 8', 4' x 10'  
2-1/4" to 4" thickness inclusive are 2' x 4'

## Primary Specification (Resin) (Typical)

**Natural** ASTM-D-6778 POM0211

**Black** ASTM-D-6778 POM0211

## Shapes Specification (Typical)

**Natural** ASTM-D-6100 S-POM0211

**Black** ASTM-D-6100 S-POM0211

*Profiles, tubes, and special sizes are custom-produced on request.*



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