



# TECAFORM<sup>TM</sup>

## (Acetal Copolymer)

TECAFORM<sup>TM</sup> is a semi-crystalline thermo-plastic offering high strength, stiffness and toughness. TECAFORM<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> is resistant to aqueous solutions with pH values ranging from 4 to 14.
- **Good wear and abrasion properties**
- **Natural grade is FDA, USDA, NSF and 3A Sanitary compliant**
- **Good dimensional stability**
- **Good property retention at elevated temperatures**
- **Black grade is FDA compliant**

*TECAFORM<sup>TM</sup> 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<sup>TM</sup>'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                   |
|                   | Shure 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                            | -                | -  | -                    |
|                   | Vicate 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                |

This information is only to assist and advise you on current technical knowledge and is given without obligation or liability. All trade and patent rights should be observed. All rights reserved. Data obtained from extruded shapes material.

## MATERIAL AVAILABILITY

**Rods:** Diameters: 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-4181 POM211

**Black** ASTM-D-4181 POM211

## 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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