

## Tecaform™ SD (Static Dissipative Acetal Copolymer)

Tecaform™ SD is a natural copolymer acetal with static dissipative characteristics. Its comparatively low surface and volume resistivities, excellent bearing and wear properties, and toughness make Tecaform™ SD an ideal material for moving components experiencing friction, or parts subject to fluid flow contact. Tecaform™ SD contains noncarbon, permanently anti-static additives which do not migrate and are not affected by humidity levels.

- Permanently anti-static – Tecaform™ SD has a surface resistivity of  $10^9 - 10^{11}$  ohms/square
- Superior bearing and wear properties – Compared to unfilled acetal, Tecaform™ SD has significantly improved wear rates.
- Low coefficient of friction
- Contains no carbon additives – Tecaform™ SD is an inherently static-dissipative composite containing no carbon and is generally acceptable for clean room applications.
- Good impact properties
- Unaffected by humidity – Both the copolymer acetal base and anti-static alloying additives are unaffected by moisture.
- Insulates against moderate to high leakage currents – Because Tecaform™ SD has resistivity values at the upper end of the dissipative range, it is an effective insulator against moderate and high leakage currents.
- Non-particulating

Tecaform™ SD is an inherently anti-static copolymer acetal that is ideal for applications requiring static dissipation that cannot tolerate the presence of carbon. It has excellent wear properties and is targeted to the business machine, semiconductor, and electrical/electronic markets.

| Property  | ASTM Test Method | Units       | Tecaform™ SD          |
|---|------------------|-------------|-----------------------|
| <b>Physical</b>                                 |                  |             |                       |
| Specific Gravity                                | D792             | g/cc        | 1.33                  |
| Water Absorption – 24hours, 73 °F               | D570             | %           | 0.20                  |
| <b>Mechanical</b>                               |                  |             |                       |
| Tensile Strength                                | D638             | psi         | 6,600                 |
| Tensile Elongation                              | D638             | %           | 40-50                 |
| Flexural Strength                               | D790             | psi         | 7,000                 |
| Flexural Modulus                                | D790             | psi         | 210,000               |
| Izod Impact (notched)                           | D256             | ft-lbs/in   | 1.9                   |
| Wear Factor (D)                                 |                  |             | $1.3 \times 10^{-10}$ |
| Dynamic Coefficient of Friction, 40 psi, 50 fpm |                  |             | 0.18                  |
| Static Coefficient of Friction                  |                  |             | 0.11                  |
| <b>Thermal</b>                                  |                  |             |                       |
| Heat Deflection Temperature @ 264 psi           | D648             | °F          | 190                   |
| Melting Point                                   |                  | °F          | 347                   |
| <b>Electrical</b>                               |                  |             |                       |
| Surface Resistivity                             | D257             | Ohms/square | $10^9 - 10^{11}$      |
| Volume Resistivity                              | D257             | Ohm – cm    | $10^9 - 10^{11}$      |

*NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.*