



Typical Properties of

**Semitron® ESd 225**

Electro Static Dissipative Acetal

Process: Extruded

| Property                               | Test Method    | Unit                         | Value                |
|--|----------------|------------------------------|----------------------|
| <b>Specific Gravity</b>                | D792           | --                           | 1.33                 |
| <b>Tensile Strength</b>                | D638           | psi                          | 5,400                |
| <b>Tensile Modulus</b>                 | D638           | psi                          | 200,000              |
| <b>Elongation</b>                      | D638           | %                            | 15                   |
| <b>Flexural Strength</b>               | D790           | psi                          | 7,300                |
| <b>Flexural Modulus</b>                | D790           | psi                          | 220,000              |
| <b>Compressive Strength</b>            | D695           | psi                          | 8,000                |
| <b>Compressive Modulus</b>             | D695           | psi                          | 175,000              |
| <b>Hardness, Rockwell</b>              | D785           | --                           | M50 (R108)           |
| <b>Hardness Durometer</b>              | --             | --                           | D76                  |
| <b>Izod Impact (notched)</b>           | D256           | ft. lb of notch              | 1.5                  |
| <b>Coeff. of Friction (Dynamic)</b>    | --             | dry v.s steel                | 0.29                 |
| <b>Coeff. of Linear Therm. Expan.</b>  | E831/ D696     | in./in./°F                   | $9.3 \times 10^{-5}$ |
| <b>Continuous Use Temperature</b>      | --             | °F                           | 180                  |
| <b>Heat Deflection Temperature</b>     | D648           | °F                           | 225                  |
| <b>Glass Transition Temperature</b>    | D3418          | °F                           | 145                  |
| <b>Melting Point</b>                   | D3418          | °F                           | 320                  |
| <b>Thermal Conductivity</b>            | E1530-11       | BTU in/hr ft <sup>2</sup> °F | N / A                |
| <b>Dielectric Strength</b>             | D149           | Volts/mil                    | N / A                |
| <b>Surface Resistivity</b>             | EOS/ESD 511.11 | ohm/square                   | $10^9 - 10^{10}$     |
| <b>Flammability</b>                    | UL94           | --                           | HB                   |
| <b>Water Absorption, 24 hrs.</b>       | D570           | % by weight                  | 2                    |
| <b>Water Absorption, Saturation</b>    | D570           | % by weight                  | 8                    |
| <b>Limiting PV (4:1 Safety Factor)</b> | --             | --                           | 2,000                |
| <b>K-Factor</b>                        | --             | --                           | 30                   |
| <b>FDA Compliance</b>                  | --             | --                           | No                   |

Note: The data provided is for reference purposes only. Additional testing may be required for design specifications or quality control.  
All values at 73 F unless otherwise stated.