

## Semitron® ESd 225 (Copolymer Acetal, static dissipative)

Semitron ESd 225HR is designed for use in the semiconductor industry, where electrostatic dissipation is a requirement. It is an extruded, static dissipative acetal that has mechanical performance to 225°F, high surface resistivity, and broad chemical resistance.

Property	ASTM Test Method	Units	Semitron® ESd 520HR
<b>Physical</b>			
Specific Gravity	D792	—	1.33
Water Absorption Immersion, 24 hr.	D570	%	2
Water Absorption Immersion, Sat	D570	%	8
<b>Mechanical</b>			
Tensile Strength	D638	psi	5,400
Tensile Modulus	D638	psi	200,000
Elongation	D638	%	15
Flexural Strength	D790	psi	7,300
Flexural Modulus	D790	psi	220,000
Shear Strength	D732	psi	6,000
Compressive Strength	D695, 10% Def	psi	8,000
Compressive Modulus	D695	psi	175,000
Hardness, Rockwell	D785		M50, R108
Hardness, Durometer, Shore D Scale	D2240		76
Izod Impact (Notched)	D256 Type A	ft-lb/in	1.5
Coefficient of Friction, Dynamic	Dry vs. Steel, PTM55007		0.29
Limiting PV	PTM55007	psi-fpm	2,000
k (wear) factor	PTM55007	in <sup>3</sup> -min/lb-ft-hr	30 x 10 <sup>-10</sup>
<b>Thermal</b>			
Coefficient of Thermal Expansion	E831 (TMA)	in/in/°F	0.93 x 10 <sup>-4</sup>
Melting Point (Crystalline) Peak		°F	320
Deflection Temperature, 264 psi	D648	°F	225
Continuous Service in Air (Max), Without Load		°F	180
Flammability UL94			HB
<b>Electrical</b>			
Surface Resistance	10 <sup>10</sup> - 10 <sup>12</sup> Ohm; EOS/ESD S11.11	ohm/square	5 x 10 <sup>9</sup>

*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.*