



SEMITRON® ESD 420/ESD 420V

Dissipative PolyEtherImide (PEI / ULTEM)



** SEMITRON® is the registered trademark of

**MITSUBISHI CHEMICAL
ADVANCED MATERIALS**

PRODUCT CAPABILITIES:

- Sheet : 3/8" - 2"
- Rod: 3/8" - 1.25" (custom)

ADVANTAGES:

- Thermally Stable To Temperatures Of 420° F (215° C)
- High Mechanical Strength
- Easily Machined To Tight Tolerances
- UL94 V-O Rated

PRODUCT COLORS:

- Black

APPLICATIONS INCLUDE:

- Disk Drive Assembly Fixtures
- Semiconductor/Electronic Components
- Telecommunication Hardware
- Automotive Equipment

GENERAL PROPERTIES	ASTM or UL Test	SEMITRON® ESD420 Typical Values	SEMITRON® ESD420V Typical Values
PHYSICAL			
Specific Gravity (g/cm ³)	D792	1.34	1.51
Water Absorption, 24 hrs (%)	D570	0.5	0.21
MECHANICAL			
Tensile Strength (psi)	D638	11,500	10,000
Tensile Modulus (psi)	D638	640,000	910,000
Tensile Elongation at Yield (%)	D638	2	1.5
Flexural Strength (psi)	D790	14,500	15,800
Flexural Modulus (psi)	D790	650,000	910,000
Compressive Strength (psi)	D695	23,800	22,300
Compressive Modulus (psi)	D695	370,000	545,000
Hardness, Rockwell	D785	M118	M110
IZOD Notched Impact (ft-lb/in)	D256	1	0.5
THERMAL			
Coeff. of Thermal Expansion (x 10 ⁻⁵ in./in./°F)	E831	1.95	1.5
Heat Deflection Temp (°F / °C) @ 264 psi	D648	410 / 210	420 / 216
Glass Transition Temp (°F / °C)	D3418	410 / 210	420 / 216
Max Operating Temp (°F / °C)	-	340 / 171	340 / 171
Thermal Conductivity (BTU-in/ft ² -hr-°F)	F433	1.51	-
Flammability Rating	UL-94	V-O	V-O
ELECTRICAL			
Dielectric Strength (V/mil) short time, @ 1/8" thk	D149	-	-
Dissipation Factor at 1 MHz	D150	-	-
Surface Resistivity (ohm/sq) at 50% RH	EOS/ESD S11.11	10 ⁶ - 10 ⁹	10 ⁶ - 10 ⁹

NOTE: The information contained here in is typical values intended for reference only. They should NOT be used as a basis for design specifications or quality control.

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