



SEMITRON® ESD 500HR

Resistive Reinforced PolyTetraFluoroEthylene (PTFE)



** SEMITRON® is the registered trademark of

**MITSUBISHI CHEMICAL
ADVANCED MATERIALS**

PRODUCT CAPABILITIES:

- Sheet : 3/8" - 2"

ADVANTAGES:

- Thermally Stable To Temperatures of 500°F (260°C) Without Degradation
- High Thermal Insulation
- Low Coefficient of Friction

PRODUCT COLORS:

- White

APPLICATIONS INCLUDE:

- Integrated Circuits
- Hard Disk Drives
- Wafer Combs
- Boat Inserts
- Wear Guides
- Vacuum Wand Tips
- Thermal Isolators
- Handling Trays
- Retaining Rings
- Vacuum Wand

GENERAL PROPERTIES	ASTM or UL Test	SEMITRON® ESD500HR Typical Values
PHYSICAL		
Specific Gravity (g/cm ³)	D792	2.3
Water Absorption, 24 hrs (%)	D570	0.03
MECHANICAL		
Tensile Strength (psi)	D638	1,500
Tensile Modulus (psi)	D638	250,000
Tensile Elongation at Break (%)	D638	50
Flexural Strength (psi)	D790	2,200
Flexural Modulus (psi)	D790	350,000
Compressive Strength (psi)	D695	3,800
Hardness, Rockwell	D785	R50
IZOD Notched Impact (ft-lb/in)	D256	1
THERMAL		
Coeff. of Thermal Expansion (x 10 ⁻⁵ in./in./°F)	E831	5.7
Heat Deflection Temp (°F / °C) @ 264 psi	D648	210 / 99
Melting Temp (°F / °C)	D3418	621 / 327
Max Operating Temp (°F / °C)	-	500 / 260
Thermal Conductivity (BTU-in/ft ² -hr-°F)	F433	-
Flammability Rating	UL-94	V-O
ELECTRICAL		
Surface Resistivity (ohms/sq)	ANSI / ESD STM 11.11	10 ¹⁰ - 10 ¹²
Volume Resistivity (ohm-cm) at 50% RH	IEC 60093	10 ¹⁰ - 10 ¹²
Dielectric Constant at 1MHz	D150	3.08

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.

Pactumax International Pte Ltd

39, Kaki Bukit View, Singapore 415968

Tel: 65 6482 5006 | Fax: 65 6482 5703 | Email: sales@pactumax.com | Website: www.pactumax.com