STATIC CONTROL PLASTICS

SEMITRON® ESD 480 / 490HR

Static Dissipative Reinforced PolyEtherEtherKetone / Static Dissipative PEEK

*** SEMITRON® is the registered trademark of*

QUADRANT

PRODUCT CAPABILITIES:

· Sheet : 3/8" - 2"

PRODUCT COLORS:

● Black **(ESD 480)**

● Grey **(ESD 490HR)**

ADVANTAGES:

· Excellent Dimensional Stability
· Thermally Stable To Temperatures of 475°F (270°C) Without Degradation
· Non-sloughing To Minimize Contamination
· High Structural Strength And Stiffness
· Excellent Chemical Resistance

APPLICATIONS INCLUDE:

· Nests
· Sockets
· Contactors For Test Equipment
· Electronic Device Handling Components

GENERAL PROPERTIES	ASTM or UL Test	SEMITRON® ESD480 Typical Values	SEMITRON® ESD490HR Typical Values
PHYSICAL			
Specific Gravity (g/cm^3)	D792	1.47	1.50
Water Absorption, 24 hrs (%)	D570	0.18	0.18
MECHANICAL			
Tensile Strength (psi)	D638	14,500	14,000
Tensile Modulus (psi)	D638	940,000	940,000
Tensile Elongation at Break (%)	D638	1.5	2.3
Flexural Strength (psi)	D790	21,000	21,000
Flexural Modulus (psi)	D790	1,000,000	950,000
Compressive Strength (psi)	D695	26,500	26,000
Compressive Modulus (psi)	D695	570,000	600,000
Hardness, Rockwell	D785	M107/R122	M105/R123
IZOD Notched Impact (ft-lb/in)	D256	1	1
THERMAL			
Coeff. of Thermal Expansion (x 10^{-5} in./in./°F)	E831	2.8	2.8
Heat Deflection Temp (°F / °C) @ 264 psi	D648	500 / 260	500 / 260
Glass Transition Temp (°F / °C)	D3418	-	-
Max Operating Temp (°F / °C)	–	475 / 246	475 / 246
Thermal Conductivity (BTU-in/ft^2-hr-°F)	F433	-	-
Flammability Rating	UL-94	V-O	V-O
ELECTRICAL			
Surface Resistivity (ohms/sq) at 50% RH	EOS/ESD S11.11	10^6 - 10^9	10^{10} - 10^{12}
Volume Resistivity (ohm-cm) at 50% RH	D257	10^6 - 10^9	10^{10} - 10^{12}
Static Decay, Mil-B-81705C, Seconds, Max	FTMS-4046.1	< 2 sec	< 2 sec

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.