

Semitron® ESd 410C Material Specifications

Semitron® is a high performance material for use in the semiconductor industry.

Physical Properties	Units	Test	ESd 410C
Density	lb/in ³ g/cm ³	D792	0.051 1.41
Water Absorption, 24 hrs.	%	D570	0.3
Water Absorption, Saturation	%	D570	-

Mechanical Properties	Units	Test	ESd 410C
Tensile Strength	psi	D638	9000
Tensile Modulus	psi	D638	850,000
Tensile Elongation at Break	%	D638	2
Flexural Strength	psi	D790	12,000
Flexural Modulus	psi	D790	850,000
Compressive Strength	psi	D695	19,500
Compressive Modulus	psi	D695	600,000
Hardness Rockwell	-	D785	M115 / R125
Izod Impact Notched	ft-lb/in	D256	0.8

Thermal Properties	Units	Test	ESd 410C
Coefficient of Linear Thermal Expansion	X 10 ⁻⁵ in./in./°F	D696	1.8
Heat Deflection Temperature	@264 psi °F/°C	D648	410 / 210
Melting Temperature	°F/°C	D3418	n/a
Max. Operating Temperature	°F/°C	-	338 / 170
Thermal Conductivity	BTU- in/ft ² -hr.-°F x 10 ⁻⁴ cal/cm-sec-°C	C177	- -
Flammability Rating	-	UL94	V - 0

Electrical Properties	Units	Test	ESd 410C
Dielectric Strength	(V/mil) short time, 1/8" thick	D149	-
Dielectric Constant	@1 KHz	D150	-
Surface Resistivity	Ohms/Square	EOS/ESD S11.11	10 ⁴ – 10 ⁶
Max Static Decay	sec	Mil-B-81705C	-

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