Tgard™ 200 Series
Thermally Conductive Insulators

PRODUCT DESCRIPTION

The Tgard™ 200 is a high-performance interface pad. Consisting of a silicone/boron nitride composite, these fiberglass-reinforced pads are used when the lowest thermal resistance and highest dielectric strength are required.

A high-tear, cut-through and puncture-resistant product, the Tgard™ 200 is tough and strong. Burrs cause no problems for the material and the pad will not dry out, crack, or fail when pressured between mating parts.

FEATURES & BENEFITS

- High thermal Conductivity of 5.0 W/mK
- High breakdown voltage of > 6,000 volts
- Resistant to tears and punctures
- UL® 94 V0 rated

APPLICATIONS

- Automotive control units
- General high-pressure interfaces
- Power conversion equipment
- Power semiconductors (To packages, M0SFETs and IGBTs)

PROPERTY	TEST METHOD	Tgard™210B	Tgard™220	Tgard™230
Construction		Supported	Supported	Supported
Supporting material		Fiberglass	Fiberglass	Fiberglass
Color	visual	White	Blue	Green
Density		1.51g/cc	1.45 g/cc	1.47 g/cc
Electrical Properties				
Dielectric breakdown Voltage 50mm probe	ASTM D149	6,000 volts AC	9000 volts AC	10000 volts AC
Volume resistivity (ohm-cm)	ASTM D257	$1.2x10^{15}$	$5x10^{13}$	$5.0x10^{13}$
Dielectric constant @1Mhz	ASTM D3380	3.03	3.32	3.32
Typical Properties				
Thickness		0.01” (0.25mm)	0.02” (0.51mm)	0.03” (0.75mm)
Thermal Resistance (@100PSI)	ASTM D5470	0.25℃-in2/W	0.39℃-in2/W	0.45℃-in2/W
Thermal conductivity	ASTM D5470 (modified)	5.0W/mk	5.0W/mk	5.0W/mk
Hardness (Shore A)	ASTM D2240	80	80	80
Operating temperature range		-60C to 200C	-60C to 200C	-60C to 200C
UL flammability rating	UL 94	V-0	V-1	Not rated

Configurations available: Sheet form and die-cut parts

Standard options: Request no adhesive with “A0” suffix. Request adhesive on one side with “A1” suffix. Double-sided adhesive is not available .

Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.

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