

PRODUCT DESCRIPTION

Tgard™ 210B 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 high consistent dielectric strength are required.

A high-tear, cut-through and puncture-resistant product, the Tgard™ 210B 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/m-K
- High dielectric breakdown voltage 6,000 volts
- Resistant to tears and punctures
- UL94 V0 rated

APPLICATIONS

- Automotive control units
- Power conversion equipment
- Power semiconductors (To packages, MOSFETs and IGBTs)
- Automotive control units
- Power Supplier

PROPERTY	TEST METHOD	Tgard™ 208B	Tgard™ 210B	Tgard™ 212B
Supporting material		Fiberglass	Fiberglass	Fiberglass
Color	Visual	White	White	White
DBV*1 50mm probe	ASTM D149	5000	6000	7000
Volume resistivity (ohm-cm)	ASTM D257	1.2x10 ¹⁵	1.2x10 ¹⁵	1.2x10 ¹⁵
Dielectric constant @1MHz	ASTM D3380	3.03	3.03	3.03
Thickness mil (mm)		8 (0.2)	10 (0.25)	12 (0.3)
Thermal resistance (@100PSI) °C-in ² /W	ASTM D5470	0.20	0.25	0.27
Thermal conductivity	ASTM D5470 (modified)	5.0W/mk	5.0W/mk	5.0W/mk
Hardness (Shore A)	ASTM D2240	80	80	80
Operation Temperature range		-60°C to 200°C	-60°C to 200°C	-60°C to 200°C
UL Flammability rating	UL	94V0	94V0	94V0

*1 point- test imperial value

Standard options:

Request no adhesive with "A0" suffix. Request adhesive on one side with "A1" suffix. Double-sided adhesive is not available. Adhesive is intended to be a mounting aid and not for permanent bonding. Thermal resistance increase may be seen in comparison to material with no adhesive.

Product Part Number System

Example 1: Tgard™208B A0 = 0.008"(0.20mm) thick Tgard™ 200B product

Example 2: Tgard™212B A1= 0.012" (0.3mm) thick Tgard™ 200B product with one side adhesive

Configurations Available:

Sheets and die-cut parts are available with and without adhesive. Die cut parts on a roll are available with adhesive only. Contact your sales representative if any special shape is required.

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