



HIGH PERFORMANCE THERMAL INTERFACE PRODUCTS

Tgard[™] 300 is a medium thermal performance insulator pad consisting of a ceramic high temperature silicone rubber coated on electrical fiberglass.

Tgard 300 is specifically designed for applications that require low component mounting forces. The unique formulation will enhance thermal performance which minimizes thermal resistance at low mounting forces. The unique coating formulation offers an excellent mating surface for low pressure clip mounting applications.

FEATURES AND BENEFITS

- High breakdown voltage of 6,000 volts AC
- Thermal resistance of 0.50° C-in²/watt at 50 psi
- Unique coating formulation offers low mounting forces
- Unifying benefits of thermal & electrical performance for general-purpose applications

APPLICATIONS

- Switching mode power supplies
- Industrial equipment
- Motor controls

Tgard™ 300 Series

Thermally Conductive Insulators

PROPERTIES	TEST METHOD	METRIC VALUES			IMPERIAL VALUES		
ELECTRICAL PROPERTIES							
Dielectric withstand voltage 50mm probe for 30 sec	ASTM D149	4,500 volts DC			4,500 volts DC		
Dielectric breakdown voltage 50mm probe	ASTM D149	Avg >6,000 volts AC			Avg >6,000 volts AC		
Volume resistivity	ASTN D257	10 ¹² ohm-cm			10 ¹² ohm-in		
Dielectric constant @1Mhz	ASTN D257	3.3			3.3		
Electrical RTI temperature rating	UL746D	150°C			302°F		
MECHANICAL PROPERTIES							
Thickness		0.23 mm			0.009 in		
Hardness	ASTM D2240	75 Shore A			75 Shore A		
Tensile strength	ASTM D412	10 Mpa			1.5 Kpsi		
Elongation @ 45º to warp/fill	ASTM D412	20%			20%		
Elongation along width or length	ASTM D412	5%			5%		
Operating temperature range		-60º to 180°C			-76º to 356°F		
Color		Yellow			Yellow		
UL flammability rating	UL 94	V-0			V-0		
PRESSURE	UNITS	10 (69)	25 (172)	50 (345)	100 (689)	200 (1379)	400 (2758)
TOTAL THERMAL RESISTANCE							
Modified ASTM D5470	ºC-in²/watt	0.62	0.57	0.50	0.41	0.34	0.30
Modified ASTM D5470	ºC-cm²/watt	4.00	3.68	3.09	2.65	2.19	1.94
T0-220	ºC/watt	1.17	0.92	0.83	0.81	0.80	0.76

Standard thickness: 9 mils (0.229 mm)

Configurations available:

- Sheet form, roll form and die-cut parts
- Single-side, pressure-sensitive adhesive on request

Standard options:

- Without adhesive (A0): 12 x 18" sheets, 12" x 65M, 12" x 30M roll or custom configuration
- With adhesive (A1): 11.75 x 18" sheets, 11.75" x 30M roll or custom configuration

THR-DS-Tgard-300_032515

Any information furnished by Laird and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird materials rests with the end user, since Laird and its agents cannot be aware of all potential uses. Laird makes no warranties as to the fitness, merchantability or suitability of any Laird materials or products for any specific or general uses. Laird, Laird Technologies, Inc. or any of its affiliates or agents shall not be liable for incidental or consequential damages of any kind. All Laird products are sold pursuant to the Laird Technologies' Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2015 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Technologies Logo, and other marks are trademarks or registered trademarks of Laird Technologies, Inc. or an affiliate company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird or any third party intellectual property rights. Document A16898-00 3/2015