



# 3M™ Thermally Conductive Acrylic Interface Pad 5571

## Product Description

3M™ Thermally Conductive Acrylic Interface Pad 5571 is designated to provide a preferential heat transfer path between heat generating components like Integrated Circuit Chip and heat spreaders as aluminum heat sink. 3M™ Thermally Conductive Acrylic Interface Pad 5571 consists of a highly conformable slightly tacky acrylic elastomeric sheet filled with conductive ceramic particles which provides special features listed as follows;

- High thermal conductivity, 2.0W/m-K on plane direction.
- Good softness and conformability even to non-flat IC surfaces and heat spreading blocks.
- Excellent flame retardant, UL94 V-0 equivalent material.
- No siloxane gas/ oil bleeding which often causes electric connection failure can be generated.
- High pressure relaxation reduces pressure to electric components.
- Good electrical insulation properties.
- Slight tack allows easy pre-assembly.
- Good wetting performance for better thermal conductivity.

## Product Uses

This product can be used for heat management of electronic devices and gap filling parts in electronic components.

## Product Construction



Product thickness: 0.5, 1.0, 1.5 & 2.0mm

– Tolerance: +/- 10%

Through lamination process, up to 20mm thick product is available.

## Application Ideas

- IC Packaging Heat Conduction
- Heat Sink Bonding
- COF Chip Heat Conduction
- LED Board TIM
- HD TV Address IC Chip and Scan Module Board
- General Gap Filling in Electronic Device

Mechanical fastening such as clamp, bracket, screw and additional tapes and adhesives bonding can be used in parallel with this pad.

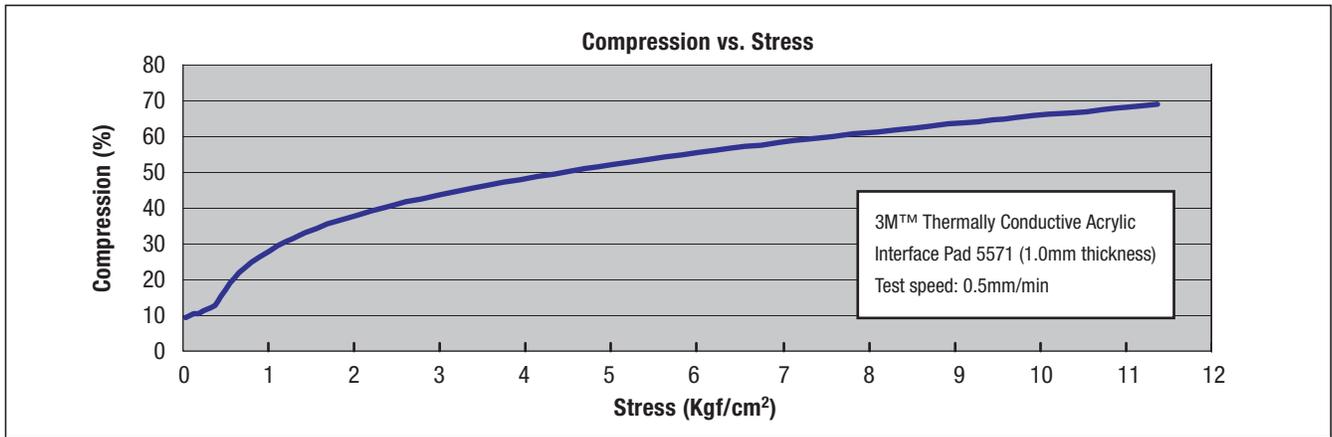


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## Typical Physical Properties and Performance Characteristics

**Note:** The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Property	Method	Value
Thermal Conductivity (W/mK)	QTM-500	2.0
Flammability	UL94	V-0
Density (g/cm <sup>3</sup> , @ 25°C)	TS-TM-441	1.85
Hardness (Shore 00)	TS-KOR-217	70
Volume Resistivity (Ω-cm)	JIS K6249	3.3 x 10 <sup>12</sup>
Dielectric Strength (kV/mm)	ASTM D149	23



### Heat Resistance

Duration (hrs)	Initial	1000	2000	5000
Thermal Conductivity (W/mK)	2.0	2.0	2.0	2.0
Hardness (Shore 00)	69	70	70	70
Appearance	–	No effect	No effect	No effect

Aged by dwelling at 110°C high temperature chamber.

## Application Techniques

- To obtain optimum thermal conductivity, the wetting surfaces must be maximized. For better contact, clean, dry and well unified surface condition is recommended. Typical surface cleaning solvents are isopropyl alcohol and water (rubbing alcohol) or heptane. **Note:** Be sure to follow manufacturer's safety precautions and directions for use when using solvents.
- Ideal application temperature range is from 0°C to 40°C. Initial application to surfaces at temperatures below 30°C is not recommended because the pad becomes too firm to be wetted readily. However, once properly applied, low temperature holding is generally satisfactory.

## Shelf Life

12 months from date of manufacture when stored in original cartons at room temperature and 50% RH.



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## Certification/Recognition

**MSDS:** 3M has not prepared a MSDS for this product which is not subject to the MSDS requirements of the Occupational Safety and Health Administration's Hazard Communication Standard, 29 C.F.R. 1910.1200(b)(6)(v). When used under reasonable conditions or in accordance with the 3M directions for use, the product should not present a health and safety hazard. However, use or processing of the product in a manner not in accordance with the directions for use may affect its performance and present potential health and safety hazards.

## For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-251-8634. Address correspondence to: 3M, Electronics Markets Materials Division, 3M Center, Building 225-3S-06, St. Paul, MN 55144-1000. Our fax number is 651-778-4244 or 1-877-369-2923. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

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