

# 3M™ Thermally Conductive Acrylic Interface Pad 5570

## Product Description

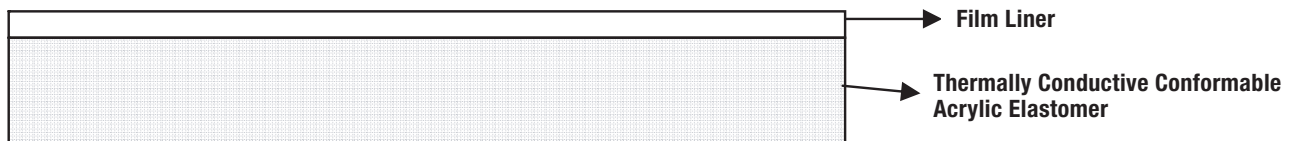
3M™ Thermally Conductive Acrylic Interface Pad 5570 is designed to provide a preferential heat transfer path between heat generating components like Integrated Circuit Chip and heat spreaders as aluminum heat sink. 3M Pad 5570 consists of a highly conformable & tacky acrylic elastomer sheet filled with conductive ceramic particles which provides special features listed as follows;

- Good softness and conformability even to non-flat IC surfaces and heat spreading blocks.
- Excellent flame retardant, UL 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 thermal conductivity and good electrical insulation properties.
- Slight tack allows pre-assembly.
- Good wettability for better thermal conductivity.

## Product Uses

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

## Construction



Product thickness: 0.5, 1.0, 1.5 and 2.0mm.

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

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## 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

## 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	1.3
Flammability	UL 94	V-0
Density (g/cm <sup>3</sup> , @ 25°C)	TS-TM-441	1.75
Hardness (Shore 00)	TS-KOR-217	50
Volume Resistivity (Ω-cm)	JIS K6249	2.9 x 10 <sup>12</sup>
Dielectric Strength (kV/mm)	JIS K6249	20

### Heat Resistance

Duration (hrs)	Initial	1000	2000	5000
Thermal Conductivity (W/mK)	1.3	1.4	1.4	1.4
Hardness (Shore 00)	48	49	50	50
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.

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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.

**TSCA:** This product is defined as an article under the Toxic Substances Control Act and therefore, it is exempt from inventory listing requirements.

**RoHs Complaint/REACH Compliant:** This product complies with the European Union's "Restriction of Hazardous Substances" (RoHs) initiative and with European REACH regulations 2002/95/EC and 2005/618/EC.

## 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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