

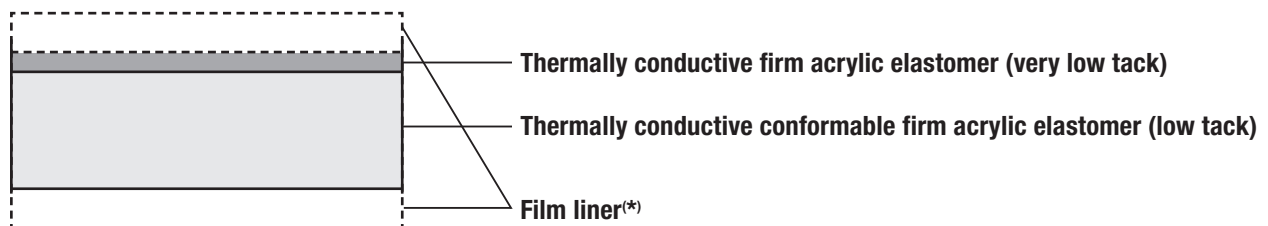
# 3M™ Thermally Conductive Acrylic Interface Pad 5578H

## Product Description

3M™ Thermally Conductive Acrylic Interface Pad 5578H is designed to provide a preferential heat transfer path between heat generating components like Integrated Circuit Chip and heat spreaders and LED lighting. 3M Pad 5578H consists of a highly conformable slightly tacky acrylic elastomer sheet filled with conductive ceramic particles which provide special features listed as follows.

- Passes UL94 V-0 flammability test
- No silicone is used in this pad construction, therefore, siloxane gas which often causes electric connection failure cannot be generated
- Good softness and conformability, even to non-flat IC surfaces
- Incorporates a thin acrylic layer for good handling
- Good thermal conductivity, good heat resistance and good electrical insulation properties
- Slight tack allows pre-assembly. Good wettability for better thermal conductivity

## Product Construction



\*Sheet Type: Liner on low tack layer; roll type: liner on very low tack layer

## 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 3M™ Thermally Conductive Acrylic Interface Pad 5578H
Color	—	Light grey / White
Thickness (mm)*	3M method	0.5 / 1.0
Thermal Conductivity (W/m-K)	3M method	3.5
Flammability	UL94 UL registration: file no. E176845	V-0
Relative Temperature Index (RTI)	UL registration: file no. E239181	140°C (Electric Grade)
Density (g/cm <sup>3</sup> , @ 25°C)	3M method	2.5
Hardness	Asker C	38
Volume Resistivity (Ω-cm)	JIS K6249	1.7 x 10 <sup>12</sup>
Dielectric Strength (kV/mm)	JIS K6249	19

**Note:** \*Tolerances of 1 mm and 1.5 mm = +/-10%, 0.5 mm +/- 0.1 mm.

### 3M™ Thermally Conductive Acrylic Interface Pad 5578H

#### Heat Stability

Duration (hrs)	Initial	500	1000	2000
Hardness (Asker C)	39	38	38	38
Appearance	—	No effect	No effect	No effect

Aged at 130°C in high temperature chamber.

### 3M™ Thermally Conductive Acrylic Interface Pad 5578H

UL Rating	In Service Temperature Resistance
UL94 V-0 UL file no. E176845	Short Term (Hours-Days) 130-150°C
	Long Term (Weeks-Months) 110-120°C

## Shelf Life

3M™ Thermally Conductive Acrylic Interface Pad 5578H shelf life is 12 months from date of manufacture when stored at room temperature conditions (20-25°C & 50% RH), and in the product's original packaging.

An attribute of the product that can vary with storage is the cosmetic appearance of the material. Slight yellowing may occur, and is considered normal for these type of products. Within the shelf life period, liner release can gradually change and should be considered to ensure robust end use and processing. Gradual liner release changes that are within the liner release specification for the shelf life period noted are typical for these products.

## Regulatory

For regulatory information about this product, contact your 3M representative.

## Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

## Product Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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