# HI-420 Thermal Insulation Silicone Foam



## Product Description

HI-420 is a newly upgraded thermal insulation silicone foam material. At room temperature, it has all the characteristics of silicone rubber, such as excellent resilience, low thermal conductivity, good weather resistance and long-term stability. At a high temperature of 500℃, it can still maintain the rubber state, the thermal conductivity is almost unchanged, and has good resilience to ensure good thermal insulation effect. HI-420 can be combined with substrates for integrated production and is an ideal choice for fire and flame retardant foam requirements in railway traffic, industrial environments and electronic equipment.

## Features and Advantages

- It still maintains rubber state at high temperature and has good resilience
- Thermal conductivity is almost unchanged from room temperature to 500 ℃, which is 0.07 W/(m · K), and thermal insulation performance is good
- Stable performance in extreme environments such as ultraviolet rays, ozone, extreme temperatures
- UL94 V-0 level of flame retardant properties
- Compliance with smoke, fire and toxicity requirements

## Typical Application

- Thermal insulation and buffering between cells
- Battery pack thermal insulation filler
- Other sealed thermal insulation applications

## Product Specification

- Substrate: No substrate or with customized substrate
- Roll form: Product size can be customized according to customer requirements
- Shape: Can be die cut into various shapes
- Adhesive: No adhesive, single-sided or double-sided adhesive

## Storage and Transportation

- Store in original packaging at room temperature
- Keep out open flames
- Handling and transportation as general chemicals
- Non-toxic and non-dangerous

## Shelf-life

- Without Adhesive: 10 years
- With Adhesive: According to the type of adhesive

The true and reliable data information contained in this information is intended to assist you in the design of the use of the TAIYA silicone foam, based on the scope of application of the product determined by our current cognition and experience, unintentionally and does not constitute any warranty, express or implied, including any warranties of merchantability to the commodity, fitness for special purposes, and does not guarantee that the user can achieve the results shown in this data for a particular purpose. For applications outside the scope, or for use under different conditions and environments, the resulting results will not be liable. Therefore, we strongly recommend that the user determine the suitability of the product before use.

Release date: 2024-11-01

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TAIYALUCK

## Product Physical Properties

| Properties | Test Method | Typical Value |
|---|---|---|
| Product | / | HI-420 |
| Color | Visual | Black |
| Density (kg/m$^3$) | ASTM D1056 | 420 |
| Thickness (mm)<br>Tolerance (%) | ASTM D374/D374M<br>/ | 0.8~12.7<br>±10 |
| Compression Set (%)<br>(max, 50%, 100℃, 22h) | ASTM D1056 | <5 |
| 25% Compression Force Deflection (kPa) | ASTM D1056 | 120 |
| Tensile Strength (kPa) | ASTM D412 | 450 |
| Elongation at Break (%) | ASTM D412 | 90 |
| Tear Strength (N/mm) | ASTM D624 | 1.8 |
| Water Absorption (%) | Internal | <3 |
| Thermal Conductivity (W/(m·K)) | ASTM E1461 | 0.07 |
| Volume Resistivity (Ω•cm) | ASTM D257 | >$10^{14}$ |
| Thermal Insulation - Temperature Difference (℃) | Internal | 270 |
| Flame Resistance | UL 94 | V-0 |
| Recommended Temperature (℃) | SAE J-2236 | -55~200 |

Note: The above data is the average of the overall test, and we can be contacted for more product information.

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