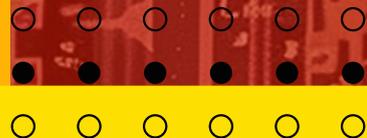




SAGAR
THERMAL MATERIALS

SAGAR THERMAL MATERIALS

COMPANY BROCHURE



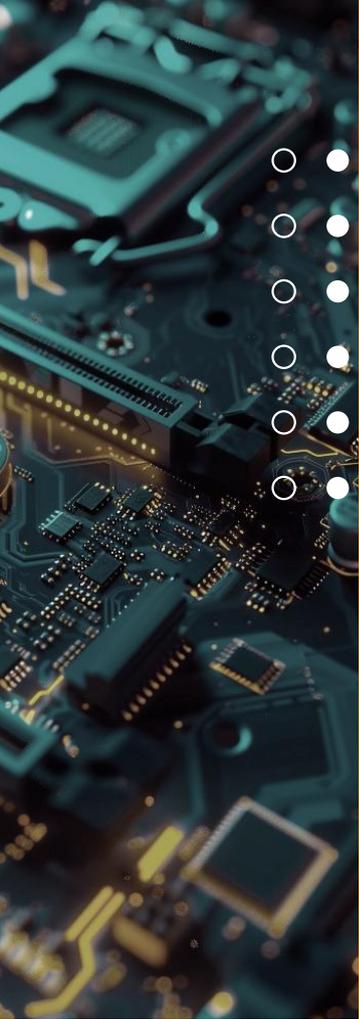
**SEPTEMBER
2025**

ADDRESS

PLOT NO. 111, ROAD NO. 10, JUBILEE HILLS,
HYDERABAD, INDIA – 500033.

CONTACT US

+91 8121174913
+91 8885550535



COMPANY OVERVIEW

Sagar Thermal Materials is one of India's first dedicated Thermal materials companies, driving the formulation and new product development in India for thermal management solutions.

We have a portfolio of thermal materials coatings, adhesives, and encapsulants for the electronics, battery, electric vehicle, and semiconductor industries. Our R&D facilities and future manufacturing site are based in Telangana, India to localize the complete process.

Our founding team is composed of industry veterans from Boston Consulting Group and MIT. Additionally, the team has developed years of strong relationships by developing and supplying technology to companies like TVS, BMW, Minda and many others.

Currently, we are building up a local team composed of R&D specialists, operations managers, and business development engineers.

Founded in 2024, we are part of the publicly traded Sagar Group of Companies that have a turnover of ~400 million USD.

COMPANY OFFICES

INDIA:

Administration Office

Plot No. 111, Road No. 10,
Jubilee Hills, Hyderabad,
India – 500033

Lab Facility

Plot no. 311, Road no. 25,
Jubilee Hills, Hyderabad,
India – 500033

JAPAN:

No 14 SHELL MIYAKO V 3F 1-2-5,
Nakamachi, Machida City, Tokyo,
Japan 〒194-0021



FOUNDING TEAM & ADVISORS



KRANTI VISTAKULA,
FOUNDER & MANAGING DIRECTOR

Serial entrepreneur and thermal management expert. As the founder of Dhama Innovations, Kranti has been the brain behind the ClimaCon Technology (a groundbreaking invention that regulates temperature). He has won several awards including the prestigious MIT Technology Reviews Innovators Under 35. He is a visionary entrepreneur who consistently pushes the boundaries of conventional thinking, devising cutting-edge solutions that tackle complex challenges. Kranti is an alumnus of Massachusetts Institute of Technology (MIT).



KEDAR REDDY,
FOUNDER & DIRECTOR

Kedar Reddy has a strong background in strategy and corporate finance having worked on deals spanning over \$200 billion. His career at prestigious firms such as Boston Consulting Group and Lazard equipped him with valuable skills and insights. With extensive knowledge across the private equity, energy, technology, and industrial sectors, Kedar adeptly navigates complex financial and strategic matters. He is an alumnus of Cambridge University and London School of Economics.



RAM DORNALA,
STRATEGIC ADVISER

Ram Dornala is our Senior Advisor responsible for international partnerships and supply chain management. He most recently was the head for global operations at Cyient DLM with a primary focus on expanding the global geographic footprint of the organization. Previously he held senior leadership positions at Wistron and Jabil. He has vast experience in defining and executing corporate-level manufacturing strategies and held various leadership positions in Supply Chain Management, setting up green field manufacturing plants, and transitioning products to low-cost countries. Ram holds a Master's degree in Industrial Engineering from Western Michigan University.



KUMAR PRASAD TELIKEPALLI,
TECHNICAL ADVISOR

Kumar is a globally recognized Industry leader in Power Electronics, eMobility & Energy Management Solutions. He has more than two decades of experience in leadership roles at Matter, Eaton & Mahindra. He is currently the Co-Founder & CTO at MATTER- a new age tech startup in eMobility & Energy sectors. He was Chairman for SIAM in 2018 and also recognized as "Power 100 leader in 2024" by eMobility+ for influencing the Mobility landscape.



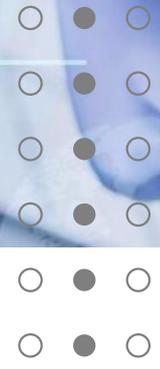
URUSHIMA MICHITAKA,
JAPAN / OPERATIONAL ADVISOR

Over 35 years of experience in the semiconductor industry, Mitchitaka has experience in setting up numerous ATMP and OSAT production lines in China, the Philippines, Thailand, South Korea, Taiwan, and Japan. Has worked for leading semiconductor companies including NEC. He is an expert in various thermal management products for the semiconductor industry including molding compounds, epoxy resins, and dispensing equipment.



KEN NAGASHIMA,
TAIWAN / OPERATIONAL ADVISOR

Semiconductor industry veteran for 40+ years, Nagashima has been involved in the overall semiconductor business including manufacturing. Has worked for leading semiconductor companies including NEC. Founder of Eclipse Technology which supplies heat spreaders, underfills, die attaches for the semiconductor industry. Current customers include large companies such as AMKOR.



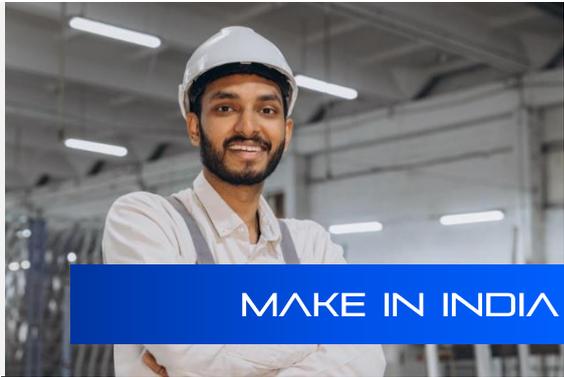
COMPANY MISSION



INNOVATE IN INDIA

We want to build on the existing R&D capabilities that India possesses and ensure we are building an ecosystem of R&D professionals that can work directly with Indian companies to develop thermal management solutions.

As India shifts from "Package in India" to truly "Make in India", thermal management products will also need to be made locally. Our mission is to make all of our products in India. This will truly have an impact on the local economy.

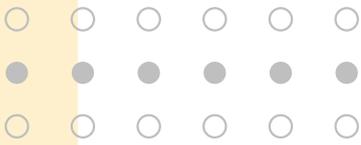


MAKE IN INDIA



BRING NEW TECH TO INDIA

We are partnering with Industry leaders around the globe and working with them to bring new technologies to India. Using these technologies, we will develop customized solutions for Indian customers as per local needs.



OUR CAPABILITIES



R&D & NPD SUPPORT

We will partner with clients' R&D teams to provide support to meet their existing thermal management challenges. By partnering with Sagar Thermal, customers will be able to develop new products at a faster speed with the support of our industry experts.



APPLICATION ENGINEERING

Our team of experienced application engineers are able to develop the appropriate problem statements and translate real world problems into practical solutions. They will ensure the selection of the appropriate thermal solution, every time.



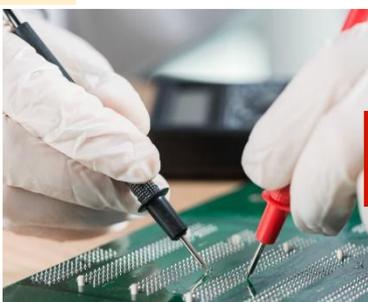
DISPENSING & MIXING

Through our local and global partners, we are able to assist customers in their manufacturing process to improve the ease of application of Thermal Interface Materials. This will result in better products for the end user.



LOCAL MANUFACTURING

The need for localizing the supply chain is becoming a trend across sectors. By working with Sagar Thermal Management, customers will have access to our local manufacturing capabilities that will also lead to less lead times.



TESTING & REPORTING

We will ensure all relevant industry and end-application tests for suggested materials are carried through in our labs. Relevant documentation, reports, and certifications are provided as per the customer requirements.

OVERVIEW OF PRODUCTS

01



Thermal Grease

02



Thermal Pad

03



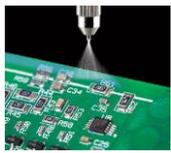
Insulation Materials

04



Thermal Gel

05



Conformal Coating

06



Potting Material

7A



Gap Filler

7B



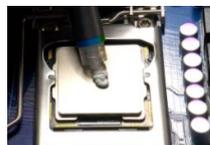
TIM Putty

08



Phase change material

9A



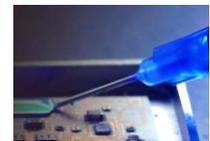
Thermal Adhesive

9B



RTV Sealant

10A



UV Adhesive

10B



Gasket Maker

11A



Heat Spreaders

11B



Fire Retardants

12A



Gaskets & Seals

12B



Specialty Graphite Gaskets

13



Cold Plates

14



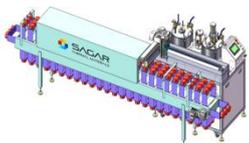
Heat Sinks, Heat Pipes & Vapor Chamber

15



EMC Tape and Associated Materials

16



Potting Dispensing Machine

THERMAL GREASE

Sometimes called thermal paste or thermal interface material (TIM), thermal grease is a thermally conductive material used to connect a heat source to a thermal spreading device. With its profound performance and flexibility, you can find thermal grease at use in a variety of thermal settings, including heat sinks. Thermal grease improves a system's overall thermal conductivity effectiveness.

Looking for customized high-performance thermal grease? We are a leading thermal management material supplier and can quickly provide tailor-made thermal grease to meet your needs.

Features

- ✓ **Thermal Conductivity:** 1~9.5 W/m-K
- ✓ **Raw Material:** Silicone blended with thermal conductive filler
- ✓ **Temperature Range:** -50°C~230°C, Grease consistency
- ✓ High thermal conductivity
- ✓ Excellent insulation and coating properties.
- ✓ Fully Customizable as per Customer and applications



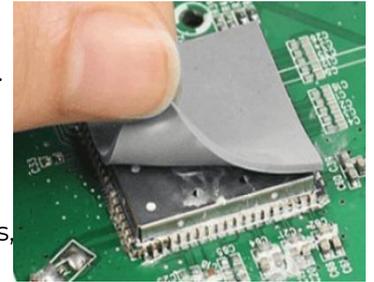
Applications

- CPU and GPUs
- Heatsinks and Cooling Solutions
- Thermal Pads Replacement

| Silicone | | | | | | |
|---------------------|------------|-----------------|-----------------|----------------|----------------------------|---------------------|
| Part Number | TC (W/m-K) | One or Two Part | Viscosity (cps) | Density (g/cc) | Operating Temperature (°C) | Flammability rating |
| STTGSi100CA1 | 1 | 1 | 92000 | 2.95 | -40 - 150 | - |
| STTGSi150CA1 | 1.5 | 1 | 105000 | 3.06 | -40 - 150 | - |
| STTGSi200DP1 | 2 | 1 | 90000 | 3.4 | -40 - 150 | UL94-V0 |
| STTGSi250CA1 | 2.5 | 1 | 800000 | 3.25 | -40 - 150 | - |
| STTGSi340CA1 | 3.4 | 1 | 980000 | 3.23 | -40 - 150 | - |
| STTGSi350DP1 | 3.5 | 1 | 350000 | 2.6 | -40 - 150 | UL94-V0 |
| STTGSi350DP | 3.5 | 1 | 350000 | 2.7 | -40 - 150 | UL94-V0 |
| STTGSi400CA1 | 4 | 1 | 110000 | 3.42 | -40 - 150 | - |
| STTGSi500DP1 | 5 | 1 | 250000 | 2.4 | -40 - 150 | UL94-V0 |
| STTGSi550CA1 | 5.5 | 1 | 180000 | 2.51 | -40 - 150 | - |
| STTGSi600DP1 | 6 | 1 | 350000 | 2.7 | -40 - 150 | UL94-V0 |
| STTGSi800DP1 | 8 | 1 | 200000 | 5.1 | -40 - 150 | - |
| STTGSi1000DP1 | 10 | 1 | 260000 | 5.4 | -40 - 150 | - |
| Bonded Liquid Metal | | | | | | |
| Part Number | TC (W/m-K) | One or Two Part | Viscosity (cps) | Density (g/cc) | Operating Temperature (°C) | Flammability rating |
| STTG2000CA1 | 20 | 1 | - | 6.4 | -40 - 250 | - |
| STTG650CA1 | 6.5 | 1 | - | 5 | -40 - 250 | - |
| STTG950CA1 | 9.5 | 1 | - | 4.8 | -40 - 250 | - |

THERMAL PAD

Thermal pads are a type of thermal interface material (TIM) that are used to improve the heat transfer between a heat source and a heat sink. They enhance thermal efficiency and maintain device stability even in high- temperature conditions, making them a trusted option. They are typically made of a flexible material such as silicone. We also provide thermal pads of Low Oil-Bleed and Silicon-Free nature.



In today's electronic devices, selecting the correct thermal pads is crucial for optimal performance and durability. Our high-performance thermal pads are tailored for various applications including CPUs, GPUs, laptops, EVs, and ESSes, thermal management solutions.

Features

- ✓ Good thermal conductivity: 1.0~19 W/m*K
- ✓ Added reinforcing materials: PI/glass fiber cloth/Silicone tape.
- ✓ Good aging resistance: 125°C & 1000h main performance attenuations≤10%
- ✓ Good insulating properties: ≥ 8 kV/mm
- ✓ Thickness range: 0.2~6 mm
- ✓ Hardness range: 5~80 (Shore 00)
- ✓ Fully Customizable as per Customer and applications



Applications

- **CPU:** Can be used to fill microscopic gaps between the CPU surface and heat sink.
- **GPU:** Help protect delicate GPU components through their cushioning effect.
- **Smartphones and Tablets:** Can be used to manage heat between GPUs, heat sinks, and processors to prevent overheating.

| Silicone | | | | | | | |
|---------------|------------|-------------------|----------------------|----------------------------|----------------|---------------------|-----------------------------------|
| Part Number | TC (W/m-K) | Hardness | Appearance | Operating Temperature (°C) | Thickness (mm) | Flammability rating | Dielectric Withstand Voltage (kV) |
| STTPSI100DP1 | 1 | 80 (Shore A) | Grey | -60 - 180 | 0.229 | UL94-V0 | - |
| STTPSI100DB1 | 1 | 15 - 50 (Shore C) | Grey | -40 - 150 | 0.3 - 18 | UL94-V0 | 5 |
| STTPSI200DB1 | 2 | 20 - 50 (Shore C) | Blue | -40 - 150 | 0.15 - 0.18 | UL94-V0 | 5 |
| STTPSI300DB1 | 3 | 20 - 40 (Shore C) | Dark Gray/Blue | -40 - 150 | 0.3 - 12 | UL94-V0 | 5 |
| STTPSI400DB1 | 4 | 30 - 50 (Shore C) | Dark Gray/Blue/Green | -40 - 150 | 0.3 - 5 | UL94-V0 | 5 |
| STTPSI500DB1 | 5 | 30 - 50 (Shore C) | Dark Grey/Pink | -40 - 150 | 0.3 - 5 | UL94-V0 | 5 |
| STTPSI600DB1 | 6 | 30 - 50 (Shore C) | Dark Grey | -40 - 150 | 0.5 - 5 | UL94-V0 | 5 |
| STTPSI700DB1 | 7 | 35 - 50 (Shore C) | Grey | -40 - 150 | 0.5 - 5 | UL94-V0 | 5 |
| STTPSI800DB1 | 8 | 35 - 50 (Shore C) | Grey | -40 - 150 | 0.5 - 5 | UL94-V0 | 5 |
| STTPSI900DB1 | 9 | 35 - 50 (Shore C) | Grey | -40 - 150 | 0.5 - 5 | UL94-V0 | 5 |
| STTPSI1000DB1 | 10 | 35 - 50 (Shore C) | Grey | -40 - 150 | 0.8 - 5 | UL94-V0 | 5 |

THERMAL PAD

Low Oil Bleed

| Part Number | T.C. (W/m-K) | Hardness | Appearance | Operating Temperature (°C) | Thickness (mm) | Flammability rating | Dielectric Withstand Voltage (kV) |
|----------------|-----------------|--------------------|------------|-------------------------------|-------------------|---------------------|-----------------------------------|
| STTPSI300DP1LO | 3 | 30 - 70 (Shore 00) | Blue | -50 - 200 | 0.5 - 10 | UL94-V0 | 10 |
| STTPSI400DP1LO | 4 | 40 - 70 (Shore 00) | Green | -50 - 200 | 0.5 - 10 | UL94-V0 | 10 |
| STTPSI500DP1LO | 5 | 40 - 70 (Shore 00) | Grey | -50 - 200 | 0.5 - 10 | UL94-V0 | 10 |
| STTPSI600DP1LO | 6 | 40 - 70 (Shore 00) | Grey | -50 - 200 | 0.5 - 10 | UL94-V0 | 10 |

With very low rate of volatilization of siloxane

| Part Number | TC (W/m-K) | Hardness | Appearance | Operating Temperature (°C) | Thickness (mm) | Flammability rating | Dielectric Withstand Voltage (kV) |
|----------------|---------------|-------------------|------------|-------------------------------|-------------------|---------------------|-----------------------------------|
| STTPSI150DB1LX | 1.5 | 35 - 45 (Shore C) | Grey | -15 - 85 | 0.5 - 10 | UL94-V0 | 10 |
| STTPSI300DB1LX | 3 | 35 - 45 (Shore C) | Blue | -15 - 85 | 0.5 - 10 | UL94-V0 | 10 |
| STTPSI600DB1LX | 6 | 45 - 55 (Shore C) | Grey | -15 - 85 | 0.5 - 10 | UL94-V0 | 10 |

INSULATION MATERIALS

Insulation Materials are easy to use, specialized Thermal Interface Materials which provide good heat dissipation and electrical insulation. We offer Silicone based Insulating thermal pads (with fiberglass/Kapton reinforcement), Polycarbonate (PC) Sheet, Polypropylene (PP) Sheet and Insulation Paper.

INSULATING THERMAL PAD

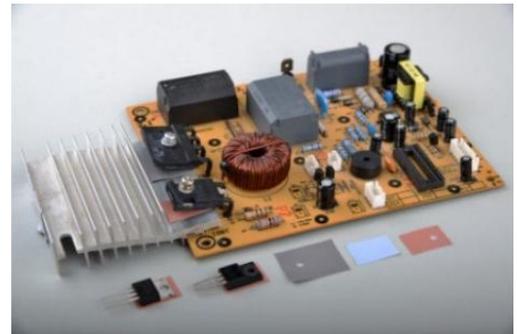
Insulating Thermal Pad is a silicon-based product type with excellent thermal conductivity, insulation and have convenient assembly. It is easy to use and clean, replaces thermal grease and is more durable than mica. It fills the gap of the heating interface to effectively perform heat transfer without being electrically conductive.

Features

- ✓ Soft and reinforced with Fiberglass or Kapton
- ✓ Very high Electrical Insulation
- ✓ Enhances the ability to resist puncture and tear

Applications

- Automation server
- Power Electronics
- UPS and Inverters
- Power Supplies
- MOS Tube and triode
- LED light source module



Silicone Rubber Content

| Part Number | T.C. (W/m-K) | Thickness (mm) | ρ (g/cc) | Hardness (Shore A) | Temp. Range (°C) | Elongation (%) | Tensile Strength (MPa) | Breaking Strength (N/25 mm) | Tear Strength (MPa) | Voltage Resistance (kV) | Flammability Rating |
|------------------|--------------|----------------|---------------|--------------------|------------------|----------------|------------------------|-----------------------------|---------------------|-------------------------|---------------------|
| STIPSI70UT1 | 0.7 | 0.3±0.03 | 2.16±0.1 | 85±5 | -50 - 200 | - | - | >150 | - | ≥5.0 | UL94-V0 |
| STIPSI100DB1 | 1 | 0.23±0.03 | 1.8±0.1 | 85±5 | -50 - 200 | 3 - 8 | - | - | 180000 | ≥10 | UL94-V0 |
| STIPSI100DB1T018 | 1 | 0.18±0.02 | 1.7±0.1 | 85±5 | -50 - 200 | 5 | 6 | - | - | ≥3 | UL94-V0 |
| STIPSI100DB1T050 | 1 | 0.5±0.05 | 1.8±0.1 | 85±5 | -50 - 200 | 3 - 8 | - | - | 180000 | ≥5 | UL94-V0 |
| STIPSI100DB1T100 | 1 | 1.0±0.03 | 2.0±0.1 | 85±5 | -50 - 200 | 3 - 8 | - | - | 180000 | ≥10 | UL94-V0 |
| STIPSI120DB1 | 1.2 | 0.23±0.03 | 1.6 - 1.9 | 85±5 | -60 - 200 | 3 - 8 | 6 | - | 180000 | ≥10 | UL94-V0 |
| STIPSI120DB1T017 | 1.2 | 0.17±0.03 | 1.7±0.1 | 85±5 | -60 - 180 | 5 | 6 | - | - | ≥3 | UL94-V0 |
| STIPSI160DB1 | 1.6 | 0.23±0.03 | 1.8±0.1 | 85±5 | -50 - 200 | 3 - 8 | 40 | >1200 | 180000 | ≥10 | UL94-V0 |
| STIPSI160DP1 | 1.6 | 0.203 | - | 80 | -60 - 180 | 2.5 | 20 | - | - | 0.5 (kVac) | UL94-V0 |
| STIPSI200DB1 | 2 | 0.25±0.03 | 2.9±0.1 | - | -50 - 200 | - | - | >100 | - | ≥10 | UL94-V0 |
| STIPSI200UT1 | 2 | 0.25±0.03 | 2.9±0.1 | 80±5 | -50 - 200 | - | - | >100 | - | ≥6.0 | UL94-V0 |

INSULATION MATERIALS

Boron Nitride Filled

| Part Number | T.C. (W/m-K) | Thickness (mm) | ρ (g/cc) | Hardness (Shore A) | Temp. Range (°C) | Thermal Impedance (cm ² -°C/W) | Tensile Strength (MPa) | Breaking Strength (N/25 mm) | Tear Strength (MPa) | Voltage Resistance (kV) | Flammability Rating |
|--------------|--------------|-----------------|---------------|--------------------|------------------|--|------------------------|-----------------------------|-----------------------|-------------------------|---------------------|
| STIPSI350DB1 | 3.5 | 0.25, 0.38, 0.5 | 1.8±0.1 | 90±5 | -60 - 200 | 0.25mm: 1.36 (344.74 kPa) 0.38mm: 1.81 - 2.45 (344.74 kPa) 0.5mm: 2.58 - 3.23 (344.74 kPa) | 6 | - | <4.5 (1 MHz - 28 GHz) | >6 | UL94-V0 |
| STIPSI350UTI | 3.5 | 0.23/0.38±0.03 | 1.5±0.1 | 90±5 | -50 - 200 | 0.57 (0.23 mm) (275.79 kPa), 0.18 (0.38 mm) (275.79 kPa) | - | ≥100 | 3.8 - 4.3 (1 MHz) | ≥5.0 | UL94-V0 |
| STIPSI500UTI | 5 | 0.25±0.03 | 1.5±0.1 | 90±5 | -50 - 200 | 0.52 (0.23 mm) (275.79 kPa) | - | ≥100 | 3.8 - 4.3 (1 MHz) | ≥4.0 | UL94-V0 |

Kapton (Polyimide) Reinforced

| Part Number | T.C. (W/m-K) | Thickness (mm) | ρ (g/cc) | Hardness | Temp. Range (°C) | Thermal Impedance (cm ² -°C/W) | Voltage Resistance (kV) | Volume Resistivity (Ω-cm) | Flammability Rating |
|----------------|--------------|----------------|---------------|----------------|------------------|---|-------------------------|---------------------------|---------------------|
| STIPSI130UTI | 1.3 | 0.15±0.02 | 1.4±0.2 | 90±5 (Shore A) | -60 - 180 | 1.94 (344.74 kPa) | ≥8.0 | ≥1.00E+14 | UL94-V0 |
| STIPSI130DB1 | 1.3 | 0.15±0.02 | 1.8±0.1 | 75±5 (Shore C) | -60 - 200 | 1.94 (344.74 kPa) | 8 kV ac | 1E+14 | UL94-V0 |
| STIPSI160DB1PI | 1.6 | 0.15±0.03 | 1.4±0.1 | 90±5 (Shore A) | -60 - 180 | - | ≥8 | 1E+14 | UL94-V0 |

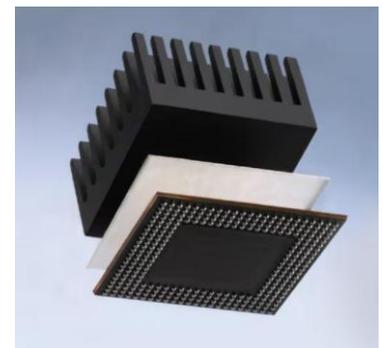
PC SHEETS

Polycarbonate (PC) sheets are transparent, thermoplastic panels made from polycarbonate resin, known for their high impact resistance, optical clarity, and thermal stability. They function as Thermal Interface Materials due to their moderate thermal conductivity and insulating properties. While not as conductive as metals or specialized TIMs, they are used in applications where electrical insulation and structural support are needed alongside heat dissipation.

We offer Polycarbonate sheets in a variety of thicknesses and with and without adhesive applied.

Features

- ✓ High Impact Resistance
- ✓ High Operating temperature range
- ✓ Can provide UV Resistance
- ✓ Electrical Insulation
- ✓ Lightweight
- ✓ Optical Clarity
- ✓ Can provide Flame Retardancy



Applications

- Act as Thermal Insulation Barriers
- Used for electrically insulating thermal spacers
- Provide structural support to heat spreaders (metal inserts or graphite layers)
- Act as Transparent protective cover

INSULATION MATERIALS

| Part Number | Thickness (mm) | ρ (g/cc) | Tensile Strength (MPa) | Elongation at Break (%) | Tear Strength (g/mil) | Vicat Softening Temp (°C) | Thermal Shrinkage (%) (135°C) | Volume Resistivity (Ω /cm) | Colour |
|----------------|---|---------------|------------------------|-------------------------|-----------------------|---------------------------|-------------------------------|------------------------------------|--------------------------------|
| STCNPC0DD1T013 | Without Adhesive: 0.125 Thickness of Adhesive Layer: 0.1 | 1.22 | 52 | 100 | >30 | 135 | ≤ 1.0 | $>1.00E+16$ | Milk White, Transparent, Black |
| STCNPC0DD1T018 | Without Adhesive: 0.175 Thickness of Adhesive Layer: 0.1 | 1.22 | 52 | 100 | >30 | 135 | ≤ 1.0 | $>1.00E+16$ | Milk White, Transparent, Black |
| STCNPC0DD1T025 | Without Adhesive: 0.25 Thickness of Adhesive Layer: 0.1 | 1.22 | 52 | 100 | >30 | 135 | ≤ 1.0 | $>1.00E+16$ | Milk White, Transparent, Black |
| STCNPC0DD1T038 | Without Adhesive: 0.38 Thickness of Adhesive Layer: 0.1 | 1.22 | 52 | 100 | >30 | 135 | ≤ 1.0 | $>1.00E+16$ | Milk White, Transparent, Black |
| STCNPC0DD1T043 | Without Adhesive: 0.43 Thickness of Adhesive Layer: 0.1 | 1.22 | 52 | 100 | >30 | 135 | ≤ 1.0 | $>1.00E+16$ | Milk White, Transparent, Black |
| STCNPC0DD1T050 | Without Adhesive: 0.5 Thickness of Adhesive Layer: 0.1 | 1.22 | 52 | 100 | >30 | 135 | ≤ 1.0 | $>1.00E+16$ | Milk White, Transparent, Black |
| STCNPC0DD1T076 | Without Adhesive: 0.76 Thickness of Adhesive Layer: 0.1 | 1.22 | 52 | 100 | >30 | 135 | ≤ 1.0 | $>1.00E+16$ | Milk White, Transparent, Black |
| STCNPC0SS1T025 | Without Adhesive: 0.25 | 1.2 | 52 | 100 | >30 | 135 | ≤ 1.0 | $>1.00E+16$ | Transparent |
| STCNPC0SS1T050 | Without Adhesive: 0.25 | 1.2 | 52 | 100 | >30 | 135 | ≤ 1.0 | $>1.00E+16$ | Transparent |

PP SHEETS

Polypropylene (PP) sheets are a versatile and durable plastic sheeting. They are known for their excellent chemical resistance, low moisture absorption, and high fatigue strength, they are a lightweight yet tough material. The primary role of the sheet is to displace the air trapped between the two uneven surfaces, which in turn improves the heat transfer efficiency.

In particular, we offer PP sheets (with or without adhesive applied), with Flame Retardant properties, Anti-static properties and specializing for Lithium Battery applications; in addition to the general PP Sheets.

Features

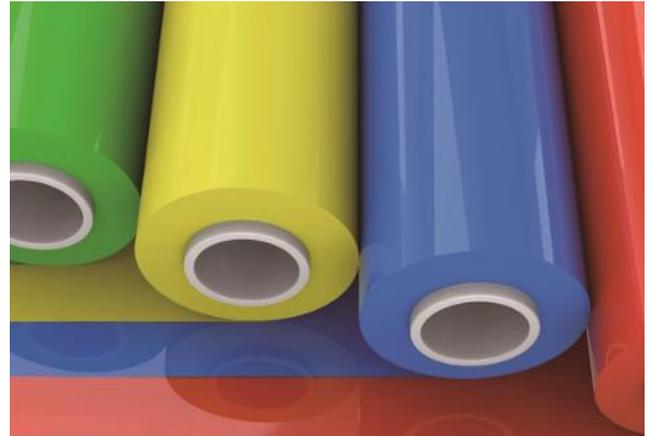
- ✓ Excellent electrical insulation
- ✓ Very conformable
- ✓ Chemically resistant, Mechanically robust, easy to handle
- ✓ RoHS, REACH Complaint
- ✓ Compliant with Ion Pollution standards



INSULATION MATERIALS

Applications

- Automotive Batteries
- Industrial ESS Batteries
- Batteries for Consumer Electronics
- Casing for consumer appliances
- Chemical resistant barriers
- For domestic applications
- Electromagnetic shields and gaskets
- Used in optical manufacturing industry



PP Sheet for Lithium Battery Applications

| Part Number | Thickness (mm) | ρ (g/cc) | Ra Value | Colour and Texture |
|----------------|----------------|---------------|-------------|--|
| STPIPP0XCIT005 | 0.05 | 0.91 | 0.20 – 1.00 | Natural Colour & Dull/Mirror like appearance and texture |
| STPIPP0XCIT010 | 0.10 | 0.91 | 0.20 – 1.00 | Natural Colour & Dull/Mirror like appearance and texture |
| STPIPP0XCIT050 | 0.50 | 0.91 | 0.20 – 1.00 | Natural Colour & Dull/Mirror like appearance and texture |
| STPIPP0XCIT100 | 1.00 | 0.91 | 0.20 – 1.00 | Natural Colour & Dull/Mirror like appearance and texture |
| STPIPP0XCIT150 | 1.50 | 0.91 | 0.20 – 1.00 | Natural Colour & Dull/Mirror like appearance and texture |

PP Flame Retardant Sheets

| Part Number | Thickness (mm) | ρ (g/cc) | Flammability Rating | Colour and Texture |
|----------------|----------------|---------------|---------------------|--|
| STPRPP0XCIT008 | 0.08 | 0.91 | UL94 VTM-0 | Black/White Fine matt/dull like appearance and texture |
| STPRPP0XCIT025 | 0.25 | 0.91 | UL94 VTM-0 | Black/White Fine matt/dull like appearance and texture |
| STPRPP0XCIT050 | 0.50 | 0.91 | UL94 V-0 | Black/White Fine matt/dull like appearance and texture |
| STPRPP0XCIT100 | 1.00 | 0.91 | UL94 V-0 | Black/White Fine matt/dull like appearance and texture |
| STPRPP0XCIT150 | 1.50 | 0.91 | UL94 V-0 | Black/White Fine matt/dull like appearance and texture |

PP Sheet for Anti-Static Applications

| Part Number | Thickness (mm) | ρ (g/cc) | Antistatic Value (Ω) | Colour and Texture |
|----------------|----------------|---------------|-------------------------------|---|
| STPSPP0XCIT010 | 0.10 | 0.91 | 10^9 | White/Natural Colour & Double Matt/Double Rough |
| STPSPP0XCIT025 | 0.25 | 0.91 | 10^{12} | White/Natural Colour & Double Matt/Double Rough |
| STPSPP0XCIT050 | 0.50 | 0.91 | 10^{16} | White/Natural Colour & Double Matt/Double Rough |
| STPSPP0XCIT070 | 0.70 | 0.91 | 10^{17} | White/Natural Colour & Double Matt/Double Rough |
| STPSPP0XCIT100 | 1.00 | 0.91 | 10^{18} | White/Natural Colour & Double Matt/Double Rough |

INSULATION MATERIALS

| PP Color Film Sheets | | | |
|----------------------|----------------|---------------|---|
| Part Number | Thickness (mm) | ρ (g/cc) | Colour and Texture |
| STPOPP0XCIT008 | 0.08 | 0.91 | Black/White/Grey/Red/Blue/Green/Pink/Yellow/Orange Colour Dull/Rubber/Orange Peel texture |
| STPOPP0XCIT025 | 0.25 | 0.91 | Black/White/Grey/Red/Blue/Green/Pink/Yellow/Orange Colour Dull/Rubber/Orange Peel texture |
| STPOPP0XCIT050 | 0.50 | 0.91 | Black/White/Grey/Red/Blue/Green/Pink/Yellow/Orange Colour Dull/Rubber/Orange Peel texture |
| STPOPP0XCIT100 | 1.00 | 0.91 | Black/White/Grey/Red/Blue/Green/Pink/Yellow/Orange Colour Dull/Rubber/Orange Peel texture |
| STPOPP0XCIT150 | 1.50 | 0.91 | Black/White/Grey/Red/Blue/Green/Pink/Yellow/Orange Colour Dull/Rubber/Orange Peel texture |

INSULATION PAPER

Insulation Paper is an electrically insulating sheet which boasts of good strength, resistance to oil, water and chemicals, and insulation properties. It is easy and convenient to use.

Features

- ✓ Good insulation
- ✓ Corrosion resistance
- ✓ Tear and abrasion resistance
- ✓ Good mechanical toughness
- ✓ Flexible
- ✓ Good wear and aging resistance
- ✓ Easy to peel and stick



Applications

- Used as electrical insulation in heavy machinery and appliances
- Used as a honeycomb core material (structural reinforcement)
- Used as fire barriers and thermal barriers
- Used as an acoustic barrier

| Part Number | Thickness (mm) | Longitudinal Elongation (%) | Lateral Elongation Rate (%) | Thermostability (°C) | Dielectric Strength (kV/mm) | Bonding Strength (MPa) |
|-------------|----------------|-----------------------------|-----------------------------|----------------------|-----------------------------|------------------------|
| STIS0AE1 | 0.25 | ≥8 | ≥2 | ≥135 | ≥2.5 | ≥0.14 |

THERMAL GEL

Thermal gels are one component products, available as cure-in-place or pre-cure solutions. Thermal gel materials can be reworkable after application and their flow characteristics can be customized for various application requirements. These thermal products are suitable for automation and mass production.

Looking for a custom solution of thermal conductive gel? We are one of the top-rated and leading suppliers of thermal management materials and can tailor high-thermal conductive gel to meet your needs.



Features

- ✓ **Type:** Single-component / Two-component
- ✓ **Thermal Conductivity:** 1.5~9 W/m*K
- ✓ **Hardness:** 5~80 (Shore 00)
- ✓ **Insulating Properties:** ≥ 8 kV/mm
- ✓ **Aging Resistance:** Excellent performance with $\leq 10\%$ attenuation at 125°C & 1000h
- ✓ Fully Customizable as per Customer and applications



Applications

- LEDs
- Audio Amplifiers
- Automotive
- PSU (Power Supply Units)

| Part Number | Series | TC (W/m-K) | No of Parts | Density (g/cc) | Viscosity (cps) | | Hardness | Operating Temp. (°C) | Surface Drying Time (at RT) | Flammability rating | Breakdown Voltage (kV/mm) |
|--------------|----------|------------|-------------|----------------|-----------------|---------|---------------|----------------------|-----------------------------|---------------------|---------------------------|
| | | | | | Part A | Part B | | | | | |
| STGLSI100TR2 | Silicone | 1 | 2 | 1.9 | 1000000 | 900000 | 60 (Shore 00) | -40 - 150 | 90 Minutes | UL94-V0 | 8 |
| STGLSI150TR2 | Silicone | 1.5 | 2 | 1.9 | 100000 | 90000 | 60 (Shore 00) | -40 - 150 | 90 Minutes | UL94-V0 | 8 |
| STGLSI200TR2 | Silicone | 2 | 2 | 2.25 | 240000 | 210000 | 50 (Shore 00) | -40 - 150 | 40 Minutes | UL94-V0 | 9 |
| STGLSI300TR2 | Silicone | 3 | 2 | 2.9 | 2000000 | 2500000 | 60 (Shore 00) | -40 - 150 | 90 Minutes | UL94-V0 | 8 |
| STGLSI400TR2 | Silicone | 4 | 2 | 3.2 | 2800000 | 2500000 | 60 (Shore 00) | -40 - 150 | 90 Minutes | UL94-V0 | 8 |
| STGLSI600TR2 | Silicone | 6 | 2 | 3.4 | 500000 | 450000 | 60 (Shore00) | -40 - 150 | 90 Minutes | UL94-V0 | 8 |
| STGLSI800TR2 | Silicone | 8 | 2 | 3.5 | 900000 | 850000 | 60 (Shore00) | -40 - 150 | 90 Minutes | UL94-V0 | 8 |

CONFORMAL COATING

Conformal coating is a protective, breathable coating of thin polymeric film applied to printed circuit boards. Conformal coatings are typically applied with a thickness of 25–250 µm to the electronic circuitry to protect against moisture and other potentially damaging conditions.

Seeking customized high-performance conductive materials? As a premier supplier of thermal management solutions, we specialize in adapting conductive materials to your specific requirements swiftly. Whether you need enhanced conductivity for electronic components or optimized heat transfer for industrial applications, our expertise ensures tailored solutions to meet your exacting needs.

Features

- ✓ Excellent electrical insulation
- ✓ Acts as a protective moisture barrier
- ✓ Provides good mechanical strength
- ✓ Enhanced chemical resistance
- ✓ Fully Customizable as per Customer and applications



Applications

- Automotive Electronics
- Aerospace and Defense
- Medical and Industrial equipment

Acrylic

| Part Number | Viscosity (cps) | ρ (g/cc) | Tackfree Time (Min.) | CT @ RT (in h) | Operating Temperature (°C) | Appearance | Volume Resistivity (Ω-cm) | Dielectric Strength (kV/mm) |
|--------------|-----------------|-----------|----------------------|----------------|----------------------------|-------------|---------------------------|-----------------------------|
| STCCAC0JX1A3 | 25 | 0.91±0.03 | 5 – 7 | 24 (23°C) | -40 – 130 | Transparent | 3×10 ¹⁴ | 15 |
| STCCAC0JX1A6 | 60 | 0.93±0.03 | ≤60 | ≤16 (23°C) | -40 – 130 | Transparent | 3×10 ¹⁴ | 15 |
| STCCAC0JX1M5 | 20 – 40 | 0.8 – 1 | 10 – 15 | 24 (23°C) | -65 – 125 | Transparent | 3×10 ¹⁴ | 80 |

Epoxy

| Part Number | Viscosity (s) | CT (in h) | Appearance | Special Properties |
|---------------|---------------|-----------|------------------------------|--|
| STCCEP30JX1 | 60 – 100 | 24 (23°C) | Available in various Colours | Water-proof, Dust-proof, Shock-proof, Outstanding Arc Resistance |
| STCCEP30JX1HV | 70 – 100 | 60 (80°C) | Available in various Colours | High temperature resistance, Outstanding Arc Resistance |
| STCCEP30JX1LV | 20 – 40 | 60 (80°C) | Available in various Colours | Excellent Arc Resistance, Dust-proof |

POTTING MATERIAL

In electronics manufacturing and assembly, potting materials are compounds that can fill and seal cavities in electronic assemblies. By doing so, potting compounds protect components from vibration and shock.

Thermal conductive potting glue is a compound offering excellent thermal conductivity and versatile properties such as insulation, flame retardancy, sealing, waterproofing, dustproofing, and shock proofing. Formulated as a two-component adhesive, it cures at room temperature, transitioning from a liquid to a polymer elastomer. It exhibits resilience even at high temperatures.

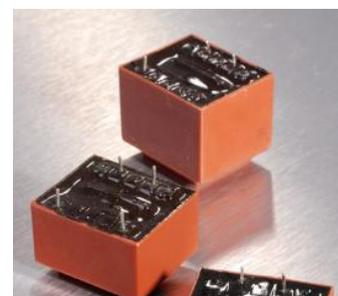
Features

- ✓ **Excellent thermal conductivity, insulation, and flowability**
- ✓ **Thermal conductivity:** 0.4~4 W/m*K
- ✓ **Hardness:** 10~80 (Shore A)
- ✓ **Insulation:** ≥ 8 kV/mm
- ✓ **Ageing resistance:** At 125°C for 1000 hours, main performance degradation ≤10%
- ✓ Fully Customizable as per Customer and applications



Applications

- Electronic Assemblies
- Sensors
- Connectors and Terminals
- Circuit Boards



| Epoxy | | | | | | | | | |
|--------------|------------|-------------|-----------------|--------------------------|--------------|----------------------------|------------------------|---------------------------------|---------------------|
| Part Number | TC (W/m-K) | No of Parts | Viscosity (cps) | Mixing Ratio (by weight) | Hardness | Operating Temperature (°C) | Curing time @ RT (Hrs) | Curing Time@ Higher Temp. (min) | Flammability rating |
| STPMEP50JX2 | 0.5 | 2 | 4000 - 4500 | 100:25 | 75 (Shore D) | 155°C | 8-12 (23°C) | 30 (50 - 60°C) | UL94-V0 |
| STPMEP70JX2 | 0.7 | 2 | 4000 - 9000 | 100:13 | 80 (Shore D) | 155°C | 12 (25°C) | 60 (80°C) | UL94-V0 |
| STPMEP90JX2 | 0.9 | 2 | 7000 - 10000 | 100:16 | 85 (Shore D) | 155°C | 12-24 (25°C) | 120-240 (60-80°C) | UL94-V0 |
| STPMEP100JX2 | 1 | 2 | 4000 - 8000 | 100:13 | 80 (Shore D) | 155°C | 24 (23°C) | 60-180 (80-100°C) | UL94-V0 |

POTTING MATERIAL

| Silicone | | | | | | | | | |
|--------------|-------------|-------------|-----------------|--------------------------|--------------|-------------------------------------|------------------------|------------------------|---------------------|
| Part Number | TC (W/m -K) | No of Parts | Viscosity (cps) | Mixing Ratio (by weight) | Hardness | Application / Operating Temperature | Curing time @ RT (Hrs) | CT@ Higher Temp. (min) | Flammability rating |
| STPMSI43JX2 | 0.43 | 2 | 1000 | 1:1 | 68 (Shore A) | 200°C | 10 (23°C) | 30 (80°C) | UL94-V0 |
| STPMSI60JX2 | 0.6 | 2 | 3200 | 1:1 | 60 (Shore A) | 200°C | 6 (23°C) | 10 (80°C) | UL94-V0 |
| STPMSI65JX2 | 0.65 | 2 | 2100 | 1:1 | 60 (Shore A) | 200°C | 4 (23°C) | 10 (80°C) | UL94-V0 |
| STPMSI70JX2 | 0.7 | 2 | 2900 | 1:1 | 60 (Shore A) | 200°C | 6 (23°C) | 10 (80°C) | UL94-V0 |
| STPMSI100JX2 | 1 | 2 | 2900 | 1:1 | 60 (Shore A) | 200°C | 6 (23°C) | 10 (80°C) | UL94-V0 |
| STPMSI100DP2 | 1 | 2 | 100000 | 1:1 | 65 (Shore C) | 200°C | 4 (25°C) | 30 (150°C) | UL94-V0 |
| STPMSI150DP2 | 1.5 | 2 | 5000 | 1:1 | 65 (Shore C) | -50~200°C | 4 (25°C) | 10 (150°C) | UL94-V0 |
| STPMSI165JX2 | 1.65 | 2 | 5700 | 1:1 | 67 (Shore A) | 200°C | 6 (23°C) | 10 (80°C) | UL94-V0 |
| STPMSI200JX2 | 2 | 2 | 11000 | 1:1 | 70 (Shore A) | 200°C | 6 (23°C) | 10 (80°C) | UL94-V0 |
| STPMSI200DP2 | 2 | 2 | 8000 | 1:1 | 65 (Shore C) | -50~200°C | 4 (25°C) | 10 (150°C) | UL94-V0 |
| STPMSI300DP2 | 3 | 2 | 15000 | 1:1 | 65 (Shore C) | -50~200°C | 4 (25°C) | 10 (150°C) | UL94-V0 |

| PU | | | | | | | | | |
|--------------|-------------|-------------|-----------------|--------------------------|--------------|----------------------------|------------------------|------------------------|---------------------|
| Part Number | TC (W/m -K) | No of Parts | Viscosity (cps) | Mixing Ratio (by weight) | Hardness | Operating Temperature (°C) | Curing time @ RT (Hrs) | CT@ Higher Temp. (min) | Flammability rating |
| STPMPU0JX2 | 0 | 2 | 550 - 710 | 100:60 | 30 (Shore A) | 130°C | 4-12 (23°C) | 90 (60°C) | UL94-V0 |
| STPMPU40JX2 | 0.4 | 2 | 3000 - 10000 | 100:30:00 | 50 (Shore A) | 130°C | 12-24 (23°C) | 240-480 (60°C) | UL94-V0 |
| STPMPU65JX2 | 0.65 | 2 | 4000 - 10000 | 100:20:00 | 70 (Shore D) | 130°C | 24-72 (23°C) | 180-240 (60°C) | UL94-V0 |
| STPMPU90JX2 | 0.9 | 2 | 10000 - 30000 | 100:20:00 | 75 (Shore A) | 135°C | 2-12 (25°C) | 120-360 (150°C) | UL94-V0 |
| STPMPU100JX2 | 1 | 2 | 10000 - 40000 | 100:14:00 | 40 (Shore D) | 130°C | 2-8 (23°C) | 60-180 (60°C) | UL94-V0 |
| STPMPU200JX2 | 2 | 2 | 11000 | 100:25:00 | 90 (Shore A) | 130°C | 12 (23°C) | 60 (80°C) | UL94-V0 |

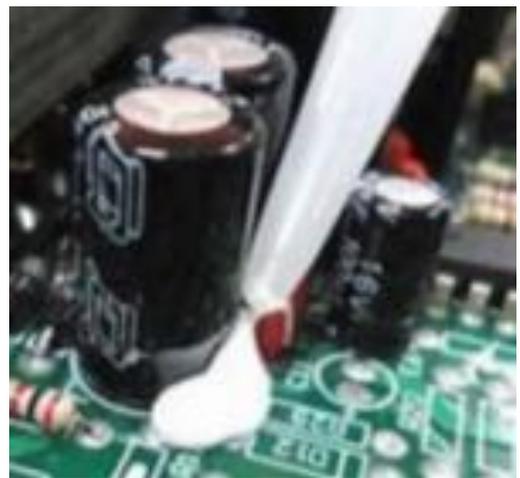
GAP FILLER

Gap fillers are an important component in thermal management for electronic devices. A class of thermal interface materials (TIMs), gap fillers are specifically designed to fill small or large gaps between heat-generating and heat-dissipating surfaces. Eliminating these gaps helps improve heat transfer and prevent overheating that can otherwise damage components and negatively impact performance.

Thermal gap fillers are developed in laboratories and applied within electronic devices and systems to fill minute spaces and crevices between heated components and chassis or heat sink assemblies. These spaces hinder heat transfer due to air's poor thermal conductivity. Gap filler formulations offer a solution by leveraging their superior thermal conductivity, effectively replacing the air-filled interface. This enables efficient heat transfer from sensitive components, ensuring devices remain compliant and operate within recommended temperature limits.

Features

- ✓ High Thermal Conductivity
- ✓ Conformability to Irregular Surfaces
- ✓ Durability Under Temperature and Pressure Variations
- ✓ Electrical Insulation
- ✓ Non-Toxic and Environmentally Friendly
- ✓ Fully Customizable as per Customer and applications



Applications

- Electronics
- Automotive
- Aerospace
- Tele communications

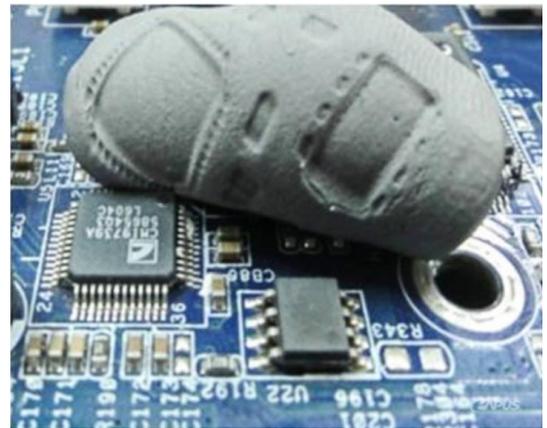
| Part Number | Series | TC (W/m-K) | No of Parts | Viscosity of Part A (cps) | Viscosity of Part B (cps) | Mixing Ratio | Density (g/cc) | Hardness | Operating Temperature (°C) | CT@ 25°C (Hours) | Appearance | Flammability rating |
|---------------|----------|------------|-------------|---------------------------|---------------------------|--------------|----------------|---------------|----------------------------|------------------|------------|---------------------|
| STGFSI350DP2 | Silicone | 3.5 | 2 | 150000 | 150000 | 1:1 | 1.8 | 50 (Shore 00) | -50 - 150 | 24 | Blue | UL94-V0 |
| STGFSI400DP1 | Silicone | 4 | 1 | 250000 | - | | 1.8 | 50 (Shore 00) | -50 - 200 | 24 | Pink | UL94-V0 |
| STGFSI400DP1 | Silicone | 4 | 1 | 270000 | - | | 3 | 45 (Shore 00) | -50 - 200 | 24 | Yellow | UL94-V0 |
| STGFSI500DP1 | Silicone | 5 | 1 | 250000 | - | | 3.2 | 50 (Shore 00) | -50 - 200 | 24 | Blue | UL94-V0 |
| STGFSI500DP2 | Silicone | 5 | 2 | 280000 | 280000 | 1:1 | 3.3 | 60 (Shore 00) | -50 - 200 | 24 | Green | UL94-V0 |
| STGFSI1300LY1 | Silicone | 13 | 2 | 120000 | 110000 | 1:1 | 2.2 | 50 (Shore 00) | -60 - 200 | 0.5 | White | UL94-V0 |
| STGFSI1500LY1 | Silicone | 15 | 2 | 47000 | 48000 | 1:1 | 3 | 80 (Shore 00) | -60 - 200 | 0.5 | Blue | UL94-V0 |
| STGFSI1800LY1 | Silicone | 18 | 2 | 110000 | 80000 | 1:1 | 3.3 | 85 (Shore 00) | -60 - 200 | 0.5 | Red | UL94-V0 |
| STGFSI2000LY1 | Silicone | 20 | 2 | 315000 | 285000 | 1:1 | 2.8 | 60 (Shore 00) | -60 - 200 | 0.75 | Grey | UL94-V0 |

TIM PUTTY

Thermal Interface Material (TIM) Putty is a one-part high-performance dispensable gap filler. It has the general characteristics of good thermal conductivity (T.C.), low thermal resistance, good adherence to heat dissipation components, permanent non drying, good insulation, and unlimited compression. It has excellent tolerance compensation feature which can overcome overflow and dryness related issues. Finally, it must be noted that there are two broad varieties based on the underlying chemistry: the ones which are silicone based (made of silica gel as the matrix and filled with a variety of high-performance ceramic powders) and the ones which are Silicon-Free. Both feel like plasticine to touch.

Features

- ✓ Designed to remove manufacturing tolerances
- ✓ Does not stress delicate components
- ✓ No Vertical flow
- ✓ No issue of sedimentation
- ✓ Radiation resistance and superior dielectric properties
- ✓ Excellent chemical and mechanical stability
- ✓ Shelf Life of ~60 Months



Applications

- Network Communication Equipment
- Consumer Electronics
- Industrial Electronic Products and Lighting
- Between a component and heat sink

| Part Number | Chem. | TC (W/m-K) | η (cps) | ρ (g/cc) | Temp. Range (°C) | Colour | BLT (mm) | V.R. (Ω -cm) | Breakdown Voltage (kV/mm) | Flow Rate (g/min) | Dissipation Factor (1 kHz) |
|----------------|---------------|------------|--------------|---------------|------------------|--------|-----------|----------------------|---------------------------|-------------------|----------------------------|
| STPTSI350LY1HV | Silicone | 3.5 | 2000000 | 3 | -60 – 180 | Blue | 0.1 – 1.5 | $>10^{15}$ | 12 | 31 | – |
| STPTSI350LY1HV | Silicone | 3.5 | 15000000 | 3 | -60 – 180 | Blue | 0.1 – 3.0 | $>10^{15}$ | 12 | – | – |
| STPTSI600LY1LV | Silicone | 6.0 | 3500000 | 3.3 | -60 – 180 | Blue | 0.1 – 1.5 | $>10^{15}$ | 12 | 21 | – |
| STPTSI600LY1HV | Silicone | 6.0 | 15000000 | 3.3 | -60 – 180 | Blue | 0.1 – 3.0 | $>10^{15}$ | 12 | – | – |
| STPTSI800LY1 | Silicone | 8.0 | 17000000 | 3.4 | -60 – 180 | Gray | 0.1 – 3.0 | $>10^{15}$ | 12 | 32 | – |
| STPTSI1000LY1 | Silicone | 10.0 | 20000000 | 3.3 | -60 – 180 | Blue | 0.2 – 3.0 | $>10^{15}$ | 12 | 23 | – |
| STPTSI1300LY1 | Silicone | 13 | 20000000 | 3.3 | -60 – 180 | Gray | 0.2 – 3.0 | $>10^{15}$ | 12 | 17 | – |
| STPTSF350TT1 | Silicone-Free | 3.5 | 7000000 | 2.5 | -55 – 200 | White | – | $>10^{13}$ | 14 | – | 0.005 |
| STPTSF450TT1 | Silicone-Free | 4.5 | 4400000 | 2.3 | -55 – 200 | Gray | – | $>10^9$ | 3 | – | 0.005 |
| STPTSF510TT1 | Silicone-Free | 5.1 | 4250000 | 3 | -55 – 200 | Gray | – | $>10^9$ | 3.2 | – | 0.005 |
| STPTSF610TT1 | Silicone-Free | 6.1 | 4500000 | 3 | -55 – 200 | White | – | $>10^{14}$ | 12 | – | – |

PHASE CHANGE MATERIAL

A phase-change material (PCM) is a substance which releases/absorbs sufficient energy at phase transition to provide useful heat or cooling. Generally, the transition will be from one of the first two fundamental states of matter - solid and liquid - to the other.

Silicon-free thermal conductive phase change materials feature a matrix of reinforced, toughened, and modified phase change materials, combined with fillers of varying sizes and shapes with high thermal conductivity. Specialized surface treatments enhance filler compatibility. These materials remain solid at room temperature but transition into highly viscous pastes at phase transition temperatures, improving heat transfer efficiency by reducing thermal resistance through close adherence to heating element surfaces.

Features

- ✓ High thermal conductivity
- ✓ Low thermal impedance
- ✓ Thermal phase change material
- ✓ Good compressibility
- ✓ Good wettability
- ✓ Good reliability
- ✓ Fully Customizable as per Customer and applications

Applications

- Thermal energy Storage
- Cold Energy battery
- Waste heat recovery
- Thermal comfort in vehicles

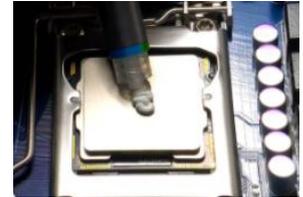


| Part Number | TC (W/m-K) | Density (g/cc) | Operating Temperature (°C) | Phase Change Temperature (°C) | Thickness (mm) | Special Properties | Appearance |
|-------------|------------|----------------|----------------------------|-------------------------------|----------------|---|------------|
| STPC150DB1 | 1.5 | 2.5 | -20 - 120 | 50 - 60 | 0.13 - 5 | Absorbs heat and softens micro flow, and recovers its solid shape after cooling, With excellent wettability and compressibility, it can be cut into various sizes | Pink |
| STPC250DB1 | 2.5 | 2.6 | -20 - 120 | 50 - 60 | 0.13 - 5 | Absorbs heat and softens micro flow, and recovers its solid shape after cooling, Low volatility - less than 1% | Grey |
| STPC300DB1 | 3 | 2.8 | -20 - 120 | 50 - 60 | 0.13 - 5 | With excellent wettability and compressibility, it can be cut into various sizes, Tightly fitting irregular device surfaces | Grey |
| STPC500DB1 | 5 | 3 | -20 - 120 | 50 - 60 | 0.13 - 5 | Low volatility - less than 1% | Grey |
| STPC600DB1 | 6 | 3.2 | -20 - 120 | 50 - 60 | 0.13 - 5 | With excellent wettability and compressibility, it can be cut into various sizes, Low volatility - less than 1% | Grey |
| STPC800DB1 | 8 | 3.5 | -20 - 120 | 50 - 60 | 0.13 - 5 | Absorbs heat and softens micro flow, and recovers its solid shape after cooling, Tightly fitting irregular device surfaces | Grey |
| STPC850CA1 | 8.5 | 2.48 | -40 - 125 | 45 | 0.2 - 1 | Soft at room temperature and self-adhesive, thins under heat and pressure | Grey |
| STPC800CA1 | 8 | 2.48 | -40 - 125 | 50 | 0.2 - 1 | Non-volatile, non-corrosive, silicon-free, can be used in silicon-sensitive environments, thins under heat and pressure | Grey |
| STPC650CA1 | 6.5 | 2.48 | -40 - 125 | 50 | 0.2 - 1 | It has very good results in certain applications that require extremely high heat dissipation, thins under heat and pressure | Grey |

ADHESIVES - THERMAL ADHESIVE

Thermally conductive adhesives are unique bonding materials designed to remove heat efficiently. These materials effectively bond things together while also allowing heat to transfer quickly. Their unique composition makes them essential for quick heat dissipation. We have Thermal Adhesives in many chemistries such as PU, Silicone, Epoxy, and others. They are commonly used across industries like automotive and electronics where heat removal is crucial.

Thermally conductive adhesives efficiently bond components while rapidly transferring heat, crucial for industries like automotive and electronics.



Features

- ✓ Wide Bonding Range
- ✓ High Strength And Toughness
- ✓ High Thermal Conductivity
- ✓ Excellent Electrical Insulation
- ✓ Fully Customizable as per Customer and applications



Applications

- Thermal adhesive is a type of thermally conductive glue used for electronic components and heat sinks.

| Silicone | | | | | | | | | | |
|--------------|------------|-------------|---------------------------|---------------------------|--------------|----------------|--------------|----------------------------|--------------|---------------------|
| Part Number | TC (W/m-K) | No of Parts | Viscosity of Part A (cps) | Viscosity of Part B (cps) | Mixing Ratio | Density (g/cc) | Hardness | Operating Temperature (°C) | Appearance | Flammability rating |
| STTASI22CA1 | 1.22 | 1 | - | | | 1.74 - 1.76 | 65 (Shore D) | -20 - 150 | Light Yellow | UL94-V0 |
| STTASI200LY2 | 2 | 2 | 190000 | 150000 | 1:1 | 2.7 | - | -50 - 180 | Grey | UL94-V0 |
| STTASI205CA1 | 2.05 | 1 | - | | | 2.55 - 2.57 | 70 (Shore D) | -20 - 150 | Light Yellow | UL94-V0 |

| Epoxy | | | | | | | | | | |
|--------------|------------|-------------|---------------------------|---------------------------|--------------|----------------|--------------|----------------------------|------------|---------------------|
| Part Number | TC (W/m-K) | No of Parts | Viscosity of Part A (cps) | Viscosity of Part B (cps) | Mixing Ratio | Density (g/cc) | Hardness | Operating Temperature (°C) | Appearance | Flammability rating |
| STTAEP120TR2 | 1.2 | 2 | 1000000 - 3000000 | 1000000 - 3000000 | 1:1 | 1.8 | 60 (Shore D) | -10 - 120 | White | UL94-V0 |

| PU & PU Toughened Epoxy Glue | | | | | | | | | | |
|------------------------------|------------|-------------|---------------------------|---------------------------|--------------|----------------|--------------|----------------------------|------------|---------------------|
| Part Number | TC (W/m-K) | No of Parts | Viscosity of Part A (cps) | Viscosity of Part B (cps) | Mixing Ratio | Density (g/cc) | Hardness | Operating Temperature (°C) | Appearance | Flammability rating |
| STTAPU120TR2 | 1.2 | 2 | 1000000 - 3000000 | 1000000 - 3000000 | 1:1 | 1.8 | 60 (Shore D) | -40 - 80 | White | UL94-V0 |

RTV SEALANT

RTV sealant stands for "Room Temperature Vulcanizing" sealant. It's a type of silicone-based sealant that cures at room temperature when exposed to air. RTV sealants are popular because they're versatile, flexible, and resistant to water, heat, and various chemicals. They're commonly used for sealing and bonding in automotive, construction, and industrial applications.

Features

- ✓ Curing Mechanism
- ✓ Flexibility
- ✓ Adhesion
- ✓ Temperature resistance
- ✓ Electrical Insulation
- ✓ Durability
- ✓ Fully Customizable as per Customer and applications

Applications

- Automotive
- Electrical
- Plumbing
- Aerospace
- Marine



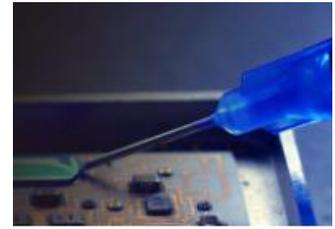
| Part Number | Series | TC (W/m-K) | No of Parts | Density (g/cc) | Hardness | Operating Temperature (°C) | Surface Drying Time | Tensile Strength (MPa) | Appearance |
|--------------|----------|------------|-------------|----------------|-------------------|----------------------------|---------------------|------------------------|--------------------|
| STRTSI30RA1 | Silicone | 0.3 | 1 | 1 - 1.4 | 20 - 40 (Shore A) | -60 - 210 | 20 - 40 Minutes | 1.5 | Black Deoxime Glue |
| STRTSI200RA1 | Silicone | 2 | 1 | 1 - 1.4 | 20 - 40 (Shore A) | -60 - 210 | 35 Minutes | 1.8 | White and Black |
| STRTSI80RA1 | Silicone | 0.8 | 1 | 1.3 - 1.7 | 30 - 50 (Shore A) | -60 - 260 | 20 - 40 Minutes | 1 | White |
| STRTSI110RA1 | Silicone | 1.1 | 1 | 1.3 - 1.7 | 30 - 50 (Shore A) | -60 - 260 | 20 - 40 Minutes | 1 | White |
| STRTSI180RA1 | Silicone | 1.8 | 1 | 1.3 - 1.7 | 30 - 50 (Shore A) | -60 - 260 | 5 - 30 Minutes | 0.8 | Grey |
| STRTSI30RA1 | Silicone | 0.3 | 1 | 1 - 1.4 | 20 - 40 (Shore A) | -60 - 210 | 20 - 40 Minutes | 1.5 | Black Deoxime Glue |

UV ADHESIVE

UV adhesive, or ultraviolet adhesive, is a type of adhesive that cures or hardens when exposed to ultraviolet light. This type of adhesive is used in various applications due to its fast-curing times and strong bonding properties

Features

- ✓ Fast Curing
- ✓ Strong Bond
- ✓ Clear finish
- ✓ Fully Customizable as per Customer and applications



Applications

- Electronics
- Glass
- Medical Devices

| Part Number | Series | No of Parts | Viscosity (cps) | Specific Gravity (g/cc) | Hardness | Operating Temperature (°C) | Curing time@ RT | Tensile Strength (MPa) | Shear Strength (MPa) | Appearance |
|--------------|---------|-------------|-----------------|-------------------------|-------------------|----------------------------|-----------------|------------------------|----------------------|--|
| STUAAAC30JX1 | Acrylic | 1 | 6000 - 8000 | 1.0-1.06 | 65 - 75 (Shore D) | -40 - 120 | 5s | 30 | 7 | Transparent Liquids are Fluorescent |
| STUAAAC31JX1 | Acrylic | 1 | 7000 - 10000 | 1.02-1.08 | 75 - 85 (Shore D) | -40 - 120 | 5s | 16 | 5 | Transparent Liquides are Fluorescent, Semi-Transparent |
| STUAAAC0ANI | Acrylic | 1 | 40000 - 60000 | 1.08 | 30 - 50 (Shore A) | -40 - 120 | 5 - 20s | - | - | Transparent/Blue |

GASKET MAKER

Gasket maker is a type of sealant designed to create a seal between two surfaces, usually to prevent leaks of fluids or gases. It's often used in automotive and industrial applications where traditional gaskets might not be suitable or available.

Features

- ✓ Chemical Resistance
- ✓ Adjustable curing time
- ✓ Flexibility and Elasticity
- ✓ Color and Visibility
- ✓ Cures via dealcoholizing (moisture curing)
- ✓ Fully Customizable as per Customer and applications



Applications

- Automotive
- Plumbing
- Marine
- Aerospace
- Electrical



| Part No. | T.C. (W/m-K) | ρ (g/cc) | Hardness (Shore A) | Temp. Range (°C) | Tackfree Time (Minutes) (25°C, 60% RH) | Curing Speed (mm/24h) | Tensile Strength (MPa) | Shear Strength (MPa) | Elongation (%) | Volume Resistance (Ω .cm) |
|----------------|-----------------|---------------|-----------------------|------------------------|--|-----------------------------|------------------------------|----------------------------|-------------------|---|
| STGMSI0AH1 | - | 1.35 ± 0.05 | 38±3 | -50 - 200 | 5 - 20 | 0.43 - 0.71 | 2.5 | - | ≥600 | 3.41E+14 |
| STGMSI0RA1GY | - | 1.2 - 1.4 | 30 - 60 | -60 - 260 | 20 - 40 | 2 - 3 | 2.3 | ≥1.5 | 660 | ≥1.0E+15 |
| STGMSI200RA1WH | 2 | 1.3 - 2.7 | 30 - 80 | -60 - 260 | ≤10 | 3 | ≥1.5 | 0.8 | ≥100 | 1.2E+12 |

SPECIALITY GRAPHITE HEAT SPREADER

Heat spreaders are components designed to distribute heat more evenly across a surface or within a device. They are commonly used in electronics, automotive applications, and other fields where managing heat is critical.

Features

- ✓ High Thermal Conductivity
- ✓ Light Weight
- ✓ Thermal Stability
- ✓ Electrical Conductivity
- ✓ Fully Customizable as per Customer and applications

Applications

- Electronics
- LED Lighting
- Automotive
- Aerospace
- Power Devices



| CHARACTERISTICS | SS350 | SS400 | SS500 | SS550 | SS600 |
|--|--|--|--|--------------|--------------|
| Typical Thermal Conductivity In-Plane - Through-Plane (W/m-K) | 350 - 4.1 | 400 - 3.7 | 500 - 2.8 | 550 - 3.7 | 600 - 3.5 |
| Thickness Capability Range(mm) | 0.127 ↑ 0.94 | 0.060 ↑ 0.94 | 0.076 ↑ 0.40 | 0.127 | 0.127 |
| Typical Roll Thickness (mm) . Typical Roll Width (mm) (Width of graphite material only, finished roll width will slightly decrease with coating and adhesive options) | 0.94 · 610 0.48 · 610 0.20 · 610 | 0.94 · 610 0.51 · 584 0.25 · 584 0.127 · 610 0.060 · 400 | 0.40 · 406 0.20 · 457 0.127 · 440 0.076 · 400 | 0.127 · 406 | 0.127 · 182 |
| Thermal Contact Impedance Per Side (°C sqcm/W) @ specified thickness (mm) | 0.34 @ 0.51 | 0.38 @ 0.51 | 0.90 @ 0.102 | 0.44 @ 0.102 | 0,44 @ 0.102 |
| Tensile Strength (MPa) | - | 9.7 | 7.7 | 9.7 | 9.7 |
| Electrical Resistivity In-Plane (Ohm) | 5.8 | 5.2 | 4.2 | 3.4 | 4.4 |
| Electrical Conductivity In-Plane. Through-Plane (S/cm) | 1,750. 23 | 1,900. 18 | 2,400. 15 | 2,900. 10 | 2,900. 10 |
| Coefficient of Thermal Expansion(ppm/°C) In-Plane Through-Plane | -0,4 27.0 | | | | |
| Specific Heat (J/g-°C) @ 50°C | 0,81 | | | | |
| Operating Temperature (°C) | -40 to +400 | | | | |
| UL Flammability Rating | 94V-0 | | | | |
| RoHS Compliant | Yes | | | | |
| Lead / Halogen Free | Yes | | | | |

FIRE RETARDANTS

Fire retardants are substances or materials that are added to products to inhibit or delay the spread of fire. They are crucial in enhancing the fire safety of various materials used in construction, textiles, electronics, and more.

Features

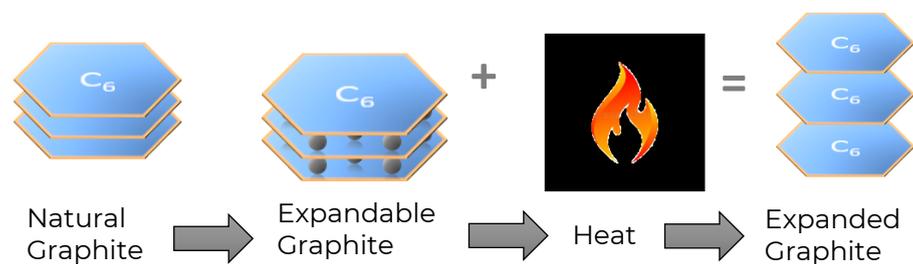
- ✓ Chemical Composition
- ✓ Thermal Stability
- ✓ Compatibility
- ✓ Cost Effectiveness
- ✓ Compliance with Standards
- ✓ Fully Customizable as per Customer and applications



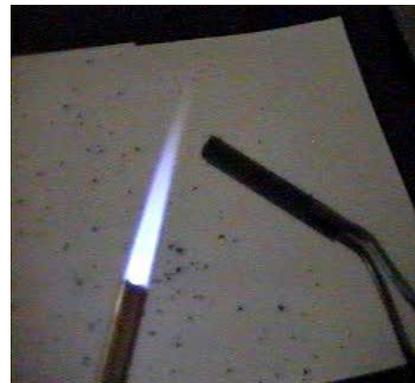
Applications

- Electronics
- Construction
- Textiles
- Transportation

Expandable Graphite



- ✓ Non-halogenated
- ✓ Non-toxic
- ✓ Will not burn at any temperature
- ✓ Protects substrate from heat and oxygen
- ✓ Reduces smoke evolution



Expansion Comparison of Common Grades



| | | | | | | |
|------------|------------|-------------|------------|------------|------------|------------|
| GG 180-60N | GG 160-50N | GG 200-100N | GG 220-50N | GG 160-80N | GG 220-80N | GG 250-50N |
|------------|------------|-------------|------------|------------|------------|------------|

5g of Graphite is expanded in a cylinder with the same weight applied to the top. The differing heights of the cylinders is due to the different pressures generated by the flake's expansion.

GASKETS & SEALS

Gaskets and seals are components that are designed to prevent liquid, dust, debris, air, gas, EMI, light, chemicals or other items from entering or exiting a device. They are designed to fill the space between two imperfect mating surfaces, with the gasket or sealing material accommodating surface irregularities.

A gasket or seal is generally made from a semi-resilient, conformable material that can have a number of highly specialized customizations optimized for the end product application. Material selection and gasket design rely on environmental conditions, compressive forces, mating surface finishes, material compatibility and temperature variations.

Features

- ✓ Tensile Strength
- ✓ Fire Resistant
- ✓ Vibration Damping
- ✓ Environmental Resistance
- ✓ Thermal Conductivity
- ✓ Durability
- ✓ Electrical Conductivity
- ✓ Lightweight
- ✓ Fully Customizable as per Customer and applications

Applications

- ✓ Electronic device housing vents
- ✓ Foam air & Fluid Filters
- ✓ Cabinet & control panel door gasket
- ✓ Airflow management & Filtration
- ✓ Dust & water proofing
- ✓ Thermal transfer gap pads
- ✓ Shock & vibration absorption
- ✓ Rubber, neoprene, foam, EPDM gaskets
- ✓ Vibration management
- ✓ Weather & dust proofing, weather stripping
- ✓ Moisture indicators



SPECIALTY GRAPHITE GASKETS

Specialty graphite gaskets are used in a variety of industrial applications due to their excellent sealing properties, high-temperature resistance, and chemical stability.

Features

- ✓ High Temperature Resistance
- ✓ Chemical Resistance
- ✓ Self-Lubricating Properties
- ✓ Flexibility and Conformability
- ✓ Fully Customizable as per Customer and applications

Applications

- Marine Applications
- HVAC Systems
- Pharmaceuticals
- Power Generation



| GRADE DESIGNATION | TYPICAL SIZES | DESCRIPTION | TYPICAL APPLICATIONS |
|---|--|--|---|
| Premium nuclear grade /Standard industrial grade | 0.005" (0.127 mm) to 0.060" (1.5 mm) Thick 24" (610 mm), 39.4" (1.0 m), 60" (1524 mm) Width 100' (30.48 m) Long, Tol: ±0.002" (0.05 mm) Thickness ±1/16" (1.6 mm) Width + 2.0' (610 mm)/-0 (0.0 mm) Length | Premium nuclear grade/Standard industrial grade monolithic sheet. Contains a nonmetallic, inorganic passivating inhibitor to increase the resistance to corrosion and oxidation. | Used as facing material to make high-purity laminated gaskets, nuclear form-in-place gaskets and thread sealant tape Nuclear, fossil fuel, aerospace and electronic applications. Used as filler material for spiral wound gaskets Chemical, petro chemical, refinery, and metallurgical applications |
| Premium nuclear grade with inhibitor/Standard industrial grade with inhibitor | 0.005" (0.127 mm) to 0.030" (0.762 mm) Thick 24" (610 mm), 39.4" (1.0 m), 60" (1524 mm) Width 100' (30.48 m) Long Tol: ±0.002 (0.05 mm) Thickness ± 1/16" (1.6 mm) Width + 2.0' (610 mm)/-0 (0.0 mm) Length | Contains a nonmetallic, inorganic passivating inhibitor to increase the resistance to corrosion and oxidation. | Primarily used for nuclear packing and gasketing and in industrial packing and gasketing applications. Used as base grade material for braided flexible graphite and as filler in spiral wound gaskets. Chemical, petrochemical, refinery, and metallurgical applications. |
| Adhesive backed sheets | 0.005" (0.127 mm), 0.010" (0.254 mm), 0.015" (0.381 mm), 0.020" (0.508 mm), 0.025" (0.635 mm), 0.030" (0.762 mm) Thick 24" (610 mm) & 39.4" (1.0 m) Wide Can also be slit to width with minimum quantity equal to parent roll width. 100'(30.48 m) Length | Plain or crinkled adhesive-backed GTA & GTB grade sheet containing less than 50 ppm leachable chlorides. Bonded to a 0.0015" (0.0381 mm) thick polymer with pressure sensitive adhesive using a siliconized release paper on one side. | Can be used in applications requiring up to two layers of thickness. Use flat tape for straight runs or as pipe thread sealant and the crinkle for the curved lay. |

COLD PLATES

Cold plates are thermal management devices designed to dissipate heat from electronic components, helping to maintain optimal operating temperatures. They are commonly used in applications where efficient heat removal is crucial, such as in computers, power electronics, and industrial machinery.

Features

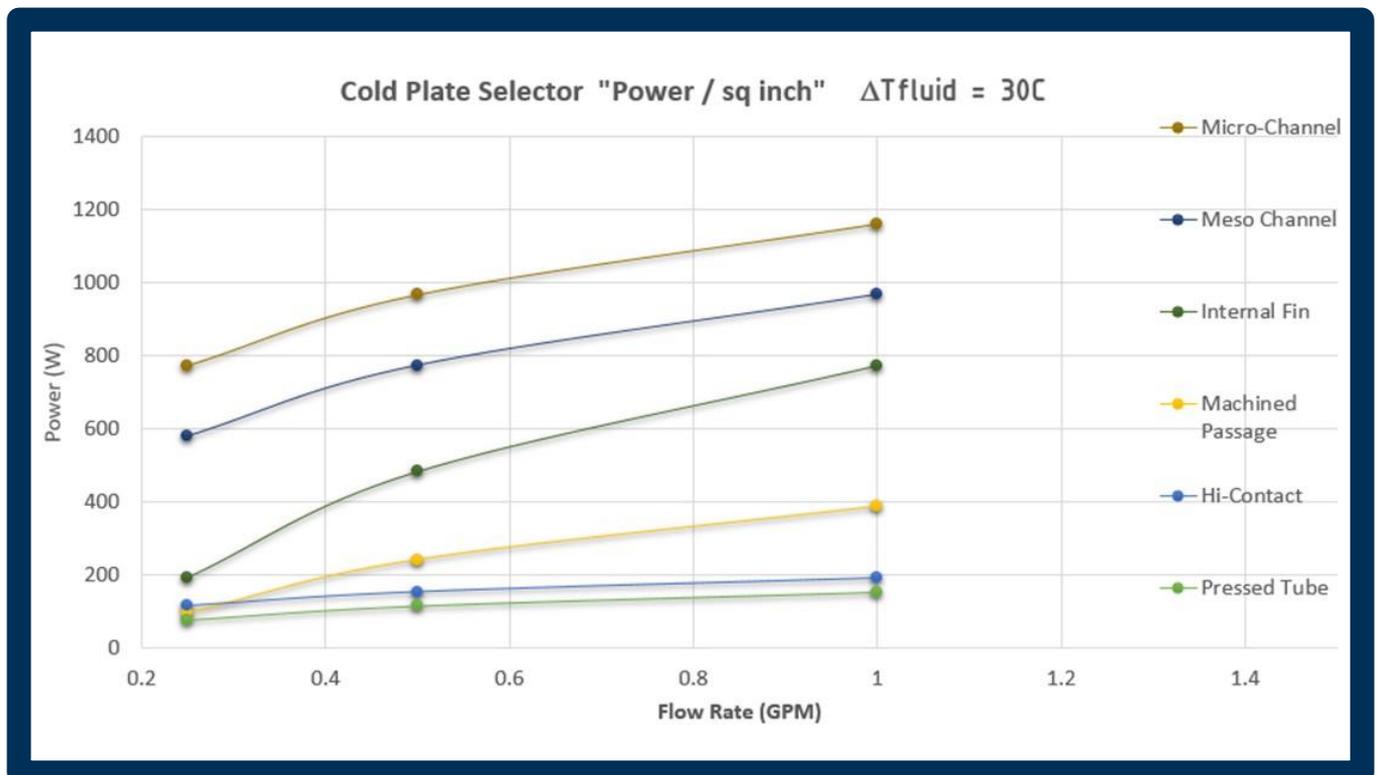
- ✓ High Thermal Conductivity
- ✓ Corrosion Resistance
- ✓ Cooling Mechanism
- ✓ High heat Transfer Coefficient
- ✓ Sealing and Durability
- ✓ Fully Customizable as per Customer and applications



Applications

- Electronics
- Automotive
- Aerospace
- Industrial Equipment

Cold Plates Selector



HEAT SINKS, HEAT PIPES & VAPOR CHAMBERS

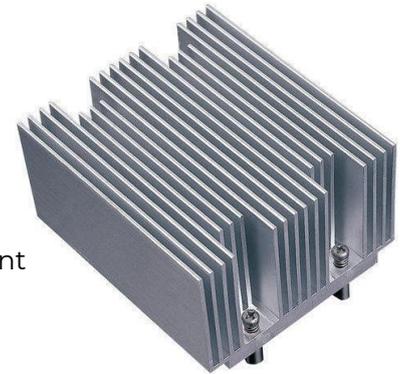
A heat sink is a passive thermal management component designed to dissipate heat from electronic devices and systems, ensuring that they operate within safe temperature ranges. By increasing the surface area available for heat dissipation, heat sinks help prevent overheating and improve the reliability and performance of electronic components.

Features

- ✓ High Thermal Conductivity
- ✓ Corrosion Resistance
- ✓ Compact Design
- ✓ Low Thermal Resistance
- ✓ Fully Customizable as per Customer and applications

Applications

- Electronics
- Automotive
- Aerospace
- Industrial Equipment



Heat Pipes

Heat pipes are highly efficient thermal management devices that transfer heat using the phase change of a working fluid. They consist of a sealed pipe containing a small amount of liquid. When one end is heated, the liquid vaporizes, absorbing heat and moving to the cooler end. There, it condenses back into a liquid, releasing the heat. This cycle allows for effective heat transfer with minimal temperature difference.

Features

- ✓ High Efficiency
- ✓ Orientation Independence
- ✓ Design Variations
- ✓ Fully Customizable as per Customer and applications

Applications

- HVAC system
- Solar Thermal systems
- Automotive



Vapor Chambers

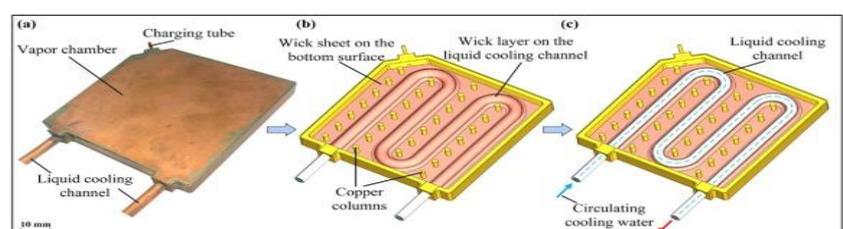
Vapor chambers are advanced thermal management devices similar to heat pipes but designed to distribute heat more evenly across a surface. They operate on the same principle of phase change of a working fluid, typically in a flat, planar format.

Features

- ✓ High Efficiency
- ✓ Uniform Heat Spreading
- ✓ Low Profile
- ✓ Fully Customizable as per Customer and applications

Applications

- Electronics Cooling
- LED Lighting
- Renewable Energy



EMC TAPES & ASSOCIATED MATERIALS

EMC TAPE

EMC tape is a polyester fiber cloth, which has been pre-treated and coated with metal through chemical plating and electroplating processes. The shielding layer is made of conductive metal cloth, which is treated with sizing and coated with black coating on the surface. It is coated with acrylic conductive pressure-sensitive adhesive through a special process to provide an electromagnetic shielding solution.

Features

- ✓ Excellent softness, wearability, and formability
- ✓ Low impedance, with good electromagnetic wave shielding performance and conductive grounding performance
- ✓ Has good bonding strength and can quickly establish bonding strength for different metal materials
- ✓ Good die-cutting performance

Applications

- It is used in electronic components for high thermal dissipation and selective electrical conduction
- This product is widely used as an internal structural component in electronic products such as mobile phones, tablets and laptops.
- It provides electromagnetic wave shielding and electrostatic discharge of modules such as speakers, loudspeakers, antennas, cameras, etc.



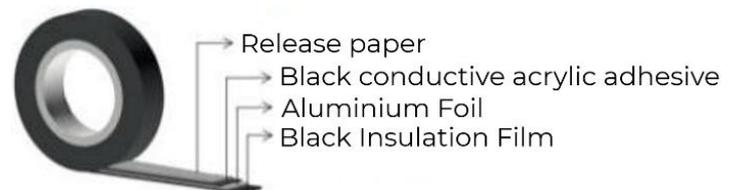
| Part Number | Weaving Density (T) | Thickness (mm) | Shielding Effectiveness (dB) (10 MHz – 3 GHz) | Holding Power (Hours) | Surface Resistance (Ω/inch^2) | Z-On Resistance (Ω/\square) |
|-------------|---------------------|----------------|---|-----------------------|---|--------------------------------------|
| STCTPO0SZ1 | 260±10 | 0.13±0.02 | ≥60 | ≥48 | ≤0.07 | ≤0.2 |
| STCTPO0XY1 | – | 0.11±0.02 | ≥70 | ≥24 | ≤0.05 | ≤0.05 |

BLACK CARBON SINGLE CONDUCTIVE ALUMINUM FOIL TAPE

Black carbon single conductive aluminum foil tape is a special electromagnetic shielding Aluminum foil, which provides electrostatic discharge, electromagnetic shielding, heat conduction, heat dissipation, shading and, inlay, etc. It consists of an Aluminum foil with acrylic adhesive applied on one side and a black insulation paper applied on the other side.

Features

- ✓ Electromagnetic shielding
- ✓ Heat conduction



Applications

- It is used in electronic components for high thermal dissipation and selective electrical conduction
- It is used for electromagnetic shielding in consumer electronics

| Part Number | Operating Temp. (°C) | Thickness (mm) | Shielding Effectiveness (dB) (30 MHz – 10 GHz) | Holding Power (Hours) | Surface Resistance (Ω/inch^2) | Adhesive Resistance (Ω/\square) |
|-------------|----------------------|----------------|--|-----------------------|---|--|
| STATAL0DD1 | -20 – 120 | 0.05 – 0.1 | ≥65 | ≥48 | ≤0.05 | ≤0.1 |
| STATAL0SS1 | Upto 120 | 0.05 | ≥40 | ≥48 | ≤0.05 | ≤0.1 |

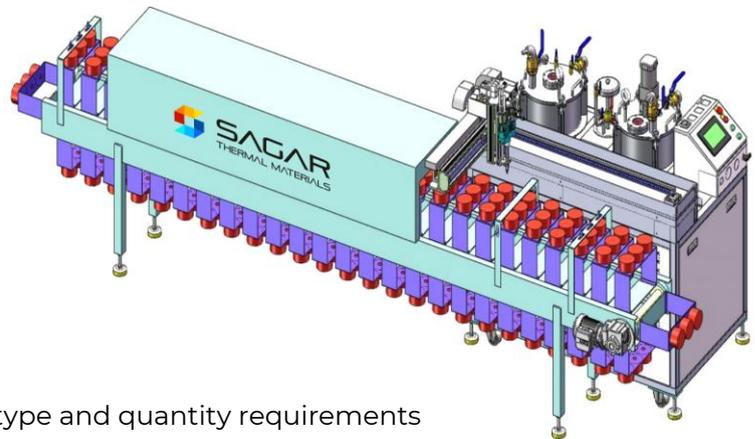
POTTING DISPENSING EQUIPMENT

While our high-quality Thermal Interface Materials are engineered for superior heat dissipation, their efficacy depends on precise, consistent application. To ensure flawless results, we also supply state-of-the-art dispensing machines, designed to handle a wide range of potting materials with accuracy and repeatability, and tailored to customer's standards.

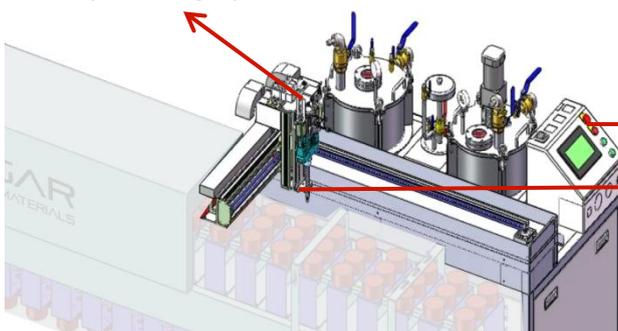
POTTING DISPENSING SOLUTION WITH CONVEYOR & OVEN CURING SYSTEM

Features of the Dispenser

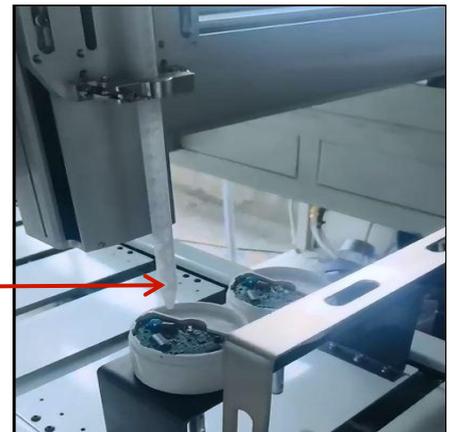
- ✓ A fully automated dispensing system designed to complete potting in 36s per part
- ✓ Equipped with programmable controllers for precise dispensing control
- ✓ Ensures uniform potting quality, reducing human errors
- ✓ Allows for adjustment based on material type and quantity requirements
- ✓ Improves production efficiency with consistent and repeatable results
- ✓ The mixing of the potting material is done automatically



3 axis(x, y, z)
Dispensing system

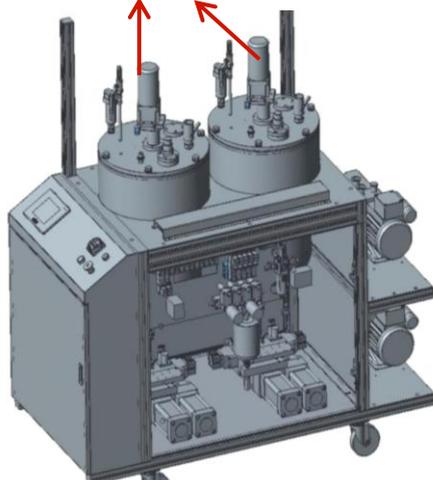


Programmable
control panel

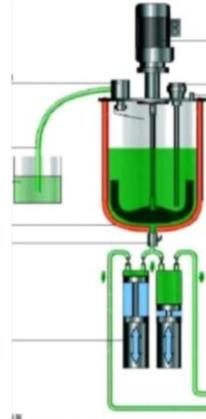


3 axis(x, y, z) Dispensing system

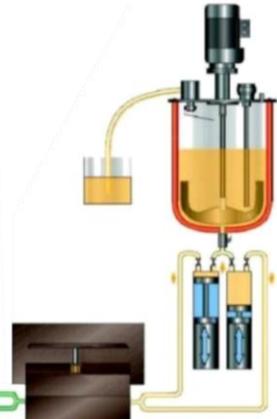
Glue barrels



Part - A



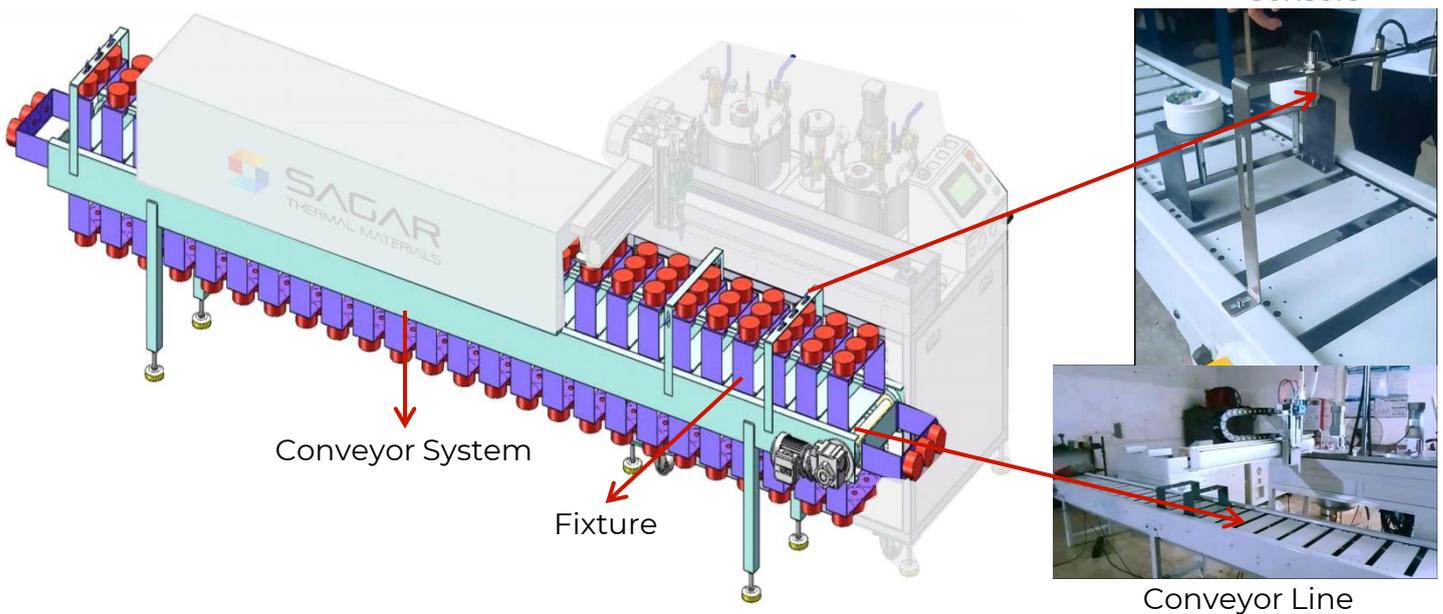
Part - B



POTTING DISPENSING EQUIPMENT

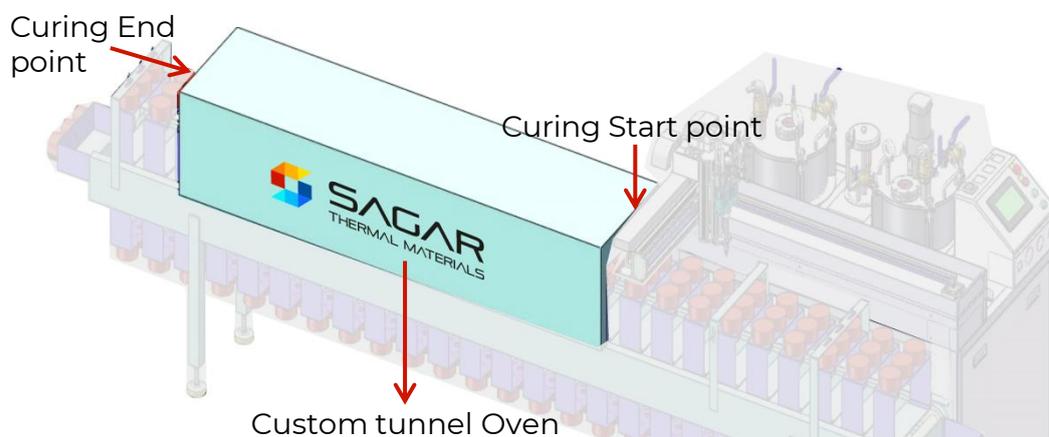
Features of the Conveyor System

- ✓ Designed to carry parts from potting to curing in a continuous flow
- ✓ Speed-adjustable using a controller to match process requirements
- ✓ Capacity to hold the required number of parts simultaneously
- ✓ Integrated sensors detect unpotted or missing parts, ensuring quality
- ✓ Provides smooth, reliable, and automated transfer between processes
- ✓ The belt is automatically driven; after dispensing a single product, the belt automatically transports it to the next product



Features of the Oven Curing Setup

- ✓ A custom tunnel oven designed for curing while parts move through it
- ✓ Handles 50 – 60 parts simultaneously, ensuring high output
- ✓ Maintains controlled temperature for consistent curing results
- ✓ Ensures that within 10 – 12 minutes, each part is fully cured when reaching the other end
- ✓ Built with energy-efficient heating and safety systems for reliable operations



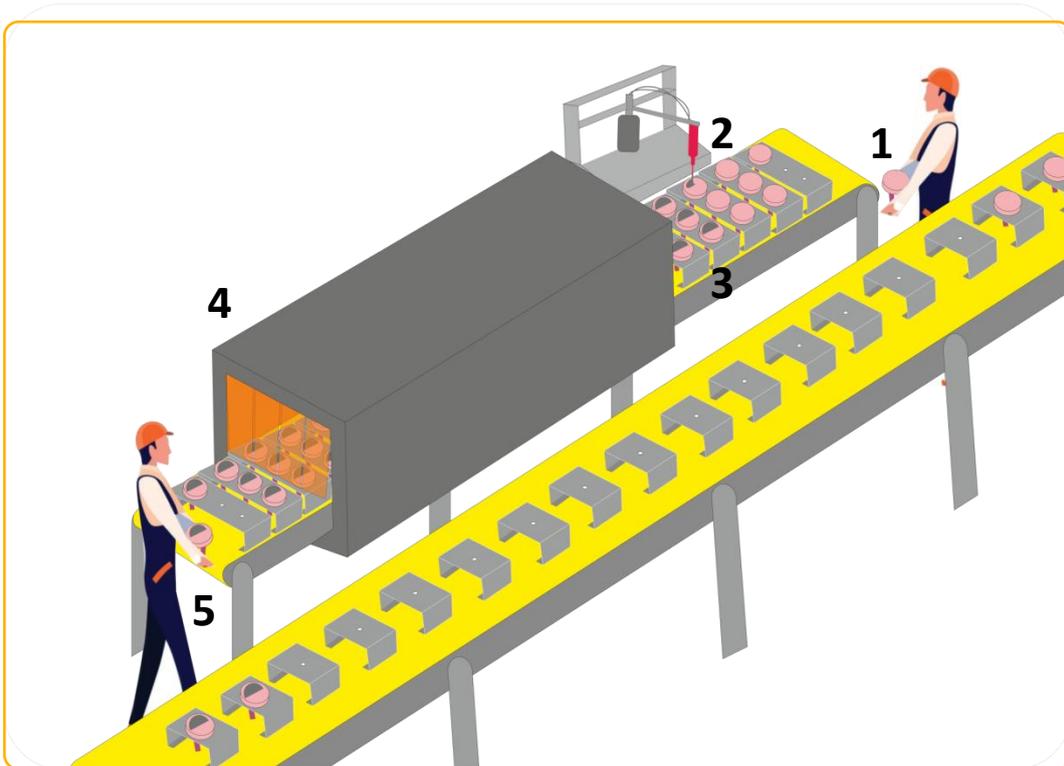
Thermal image of Potted parts curing at 60°C inside the oven



POTTING DISPENSING EQUIPMENT

Process Flow

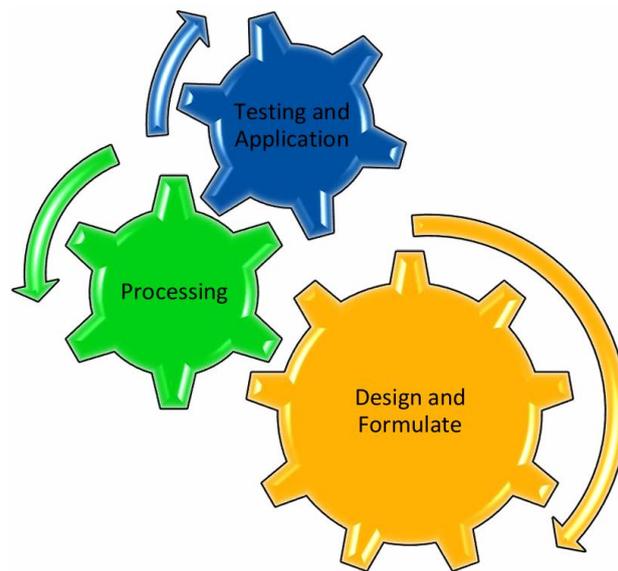
1. Part Loading: Components are placed on fixtures
2. Automatic Potting: Dispensing machine performs potting in 30 to 40 seconds per part
3. Conveyor Transfer: Potted parts move towards oven via conveyor
4. Oven Curing: Parts cure in the oven within 10–12 minutes while moving continuously
5. Finished Output: Fully cured parts are ready for the next stage of production



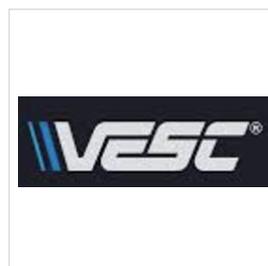
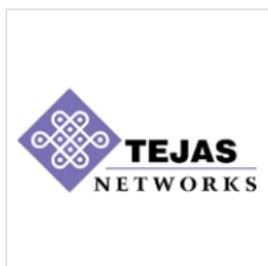
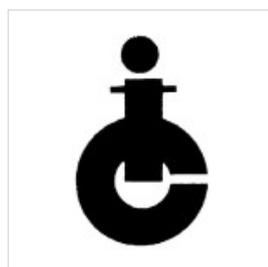
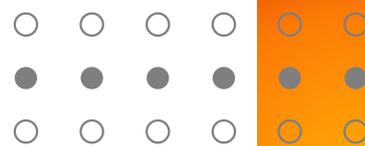
R&D FACILITY, HYDERABAD, INDIA

Location: Bollaram Industrial Area, Hyderabad.

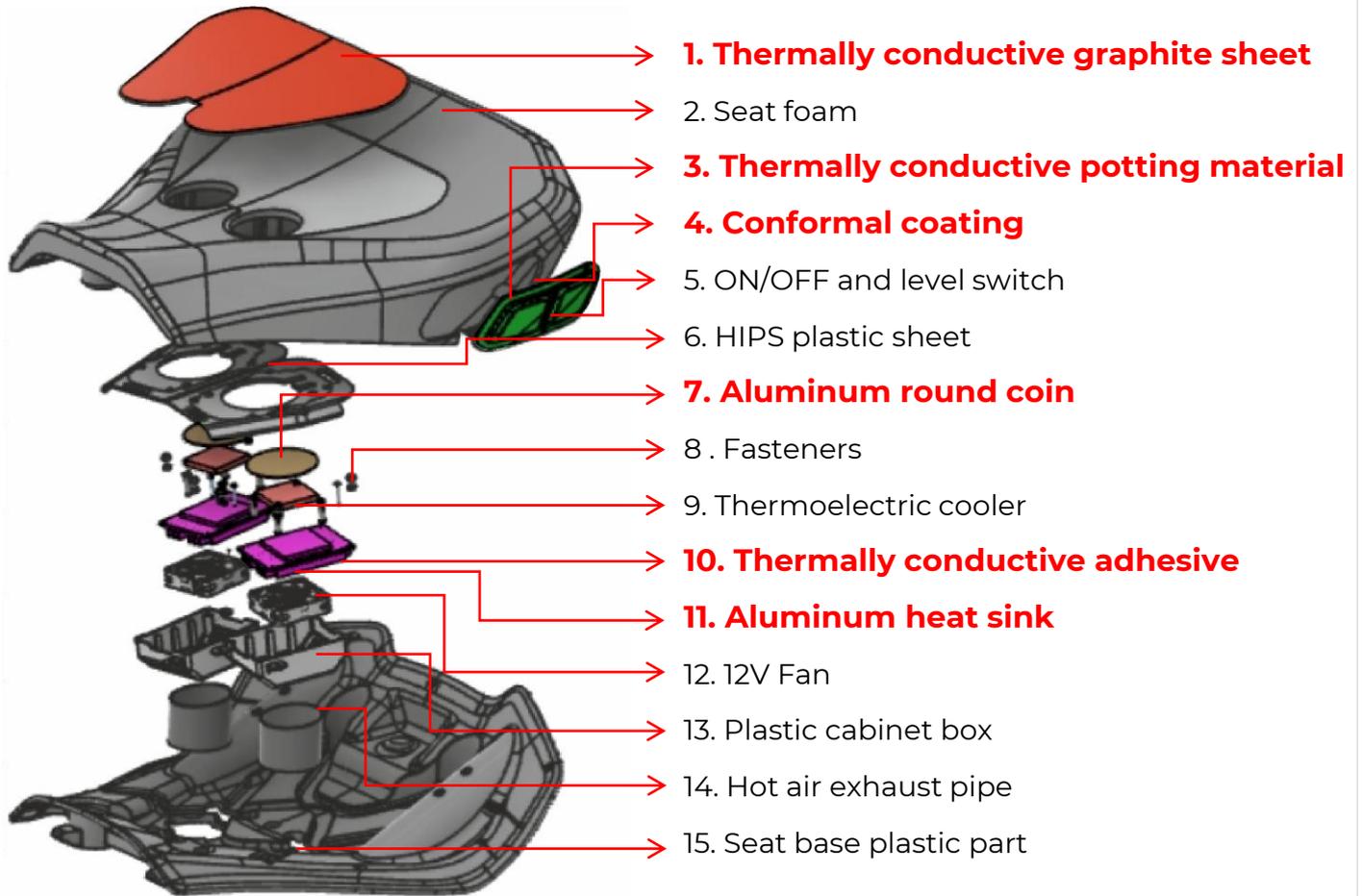
Sagar Thermal Materials specializes in developing innovative thermal management products and applicators. Our team of experts innovates and formulates advanced thermal interface materials, such as potting compounds, coatings, adhesives, etc., in collaboration with experts and customers for thermal management in industries including Battery, Electronics, EV, Semiconductors, and LED. With dedicated research facilities in Telangana, we continuously aim to introduce cutting-edge thermal management products, technologies, and dispensing technologies.



SAGAR THERMAL CUSTOMERS



INDUSTRIAL APPLICATIONS





SAGAR
THERMAL MATERIALS

**SEPTEMBER
2025**

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