

STAYSTIK® 8000

Silver Filled Adhesive Film

DESCRIPTION

STAYSTIK 8000 is a unique thermoplastic and thermoset hybrid silver filled film adhesive with both electrical and thermal conductive properties. This unique chemistry allows excellent process flexibility and adhesion to a wide variety of substrates used in electronic applications. Typical substrates are gold plated aluminum, copper, kovar, ceramics and high frequency fluoropolymers. The working life of STAYSTIK 8000 at 25°C is exceptional at 40 days based on DSC data.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES

- Electrical and Thermal conductivity, which allows grounding and minimum thermal resistance to substrates.
- Excellent adhesion and low modulus allowing for bonding of CTE mismatched materials meeting critical design requirements.
- Low ionic content.

CURE SCHEDULE

| Temperature °C | Cure Time (Minutes) |
|----------------|---------------------|
| 125 | 90 |
| 150 | 30 |
| 175 | 15 |
| 200 | 10 |

TYPICAL PROPERTIES

| Material Properties | Method | Value |
|--|----------------|----------------|
| A. Uncured | | |
| Average particle size | | 6.5µm |
| Maximum particle size | | 30µm |
| Storage Temperature | | 5 (°C/°F) |
| Pot Life @ 23 °C (time to doubling of viscosity) | ISO 10364:1993 | 40 Days |
| Shelf Life @ 5 (°C/°F) | | 6 months |
| B. Cured | | |
| Glass Transition (Tg) | ASTM D3418-99 | |
| via TMA | | 93 °C |
| via DSC | | 98 °C |
| CTE (α1) | ASTM D3386-00 | 67 ppm/°C |
| CTE (α2) | ASTM D3386-00 | 267 ppm/°C |
| Storage Modulus | ASTM D5023-01 | 4.07 Gpa |
| Adhesion @ 25°C (Al to Al) | DIN EN 6049-19 | 6400 psi |
| Adhesion @ 150°C (Al to Al) | DIN EN 6049-19 | 1400 psi |
| Volume Resistivity | | <0.0005 Ohm-cm |
| Surface Resistivity | | <3.50 Ohm/cm |
| Ohms/Sq | | <0.195 Ohm/Sq |
| Water Absorption | ASTM D-570 | 0.50% |
| Weight Loss at 250 °C | TGA | 0.55% |
| Polymer Degradation | TGA | 350°C |
| Extractable Ion Content | MIL-STD 883 | |
| Chloride (Cl-) | | <100 ppm |
| Flourine (F-) | | <25 ppm |
| Potassium (K+) | | <25 ppm |
| Sodium (Na+) | | <50 ppm |

MATERIAL APPLICATION

Films typically require pressure during bonding to ensure wetting of substrate surfaces. The pressure will be dependent upon application, temperature and time. It is critical that both interfaces to be bonded reach the required temperature. The level of sophistication can vary from dead weights to the use of spring clamps and lamination presses. Pressure should be between 5 to 100psi.

Substrate surfaces should be clean and free from oils, dust, etc as these can interfere with adhesion and electrical interface. Common industry practices include placing a rubberized silicone pad between one of the pressure plates during bonding in order to equalize the pressure over larger parts.

PACKAGING SIZES

This product is available in sheets up to 11" square. Standard thickness is 4 mils. Other thicknesses are available upon request.

SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available..**

WASTE TREATMENT

Prior to using any recommendations or suggestions for waste treatment, the user is required to know the appropriate local/state/federal regulations for on-site or off-site treatment which may require permits. If there is any conflict regarding our recommendations, local/state/federal regulations take precedent.

CONTACT INFORMATION

To confirm this document is the most recent version, please contact
techinfo@MacDermidAlpha.com

www.macdermidalpha.com

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| <p>North America 3950 Johns Creek Ct, Suite 300 Suwanee, GA 30024 USA 908.791.2300</p> | <p>Europe Unit 2, Genesis Business Park Albert Drive Woking, Surrey, GU21 5RW, UK 44.01483.758400</p> | <p>Asia 14 Joo Koon Crescent, Singapore 629014 65.6430.0700</p> |
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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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