CREATIVEMATERIALS

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ISO 9001 CERTIFIED

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123-21

PAD-PRINTABLE, B-STAGEABLE, ELECTRICALLY CONDUCTIVE, EPOXY ADHESIVE

DESCRIPTION: 123-21 is a solvent resistant, B-Stageable, electrically conductive, one part epoxy coating and adhesive. It is suitable for application by pad- printing, dipping and syringe dispensing. This product is designed for bonding capacitors to lead frames; other applications include, but are not limited to assembling electrical and electronic components. This system features excellent thermal stability and high temperature properties. For applications where a lower temperature cure is required, use CMI curing agent 119-44 and follow the instructions below. CMI product 118-06 is a 0.0008 Ω-cm, silver filled version of 123-21.

PROPERTIES:

Viscosity (cps)	10,000-15,000
Filler	Carbon
Glass Trans. Temp. (°C)	100
Volume Resistivity (ohms-cm)	76 – 177
Sheet Resistivity (ohms/sq/mil)	30K-70K
Solderable	No
Hydrolytic Stability	Excellent
Useful Temperature Range (°C)	-55 to +230
Thermal Stability (°C)	Good to 325
T-Shear Strength (psi)	2100

SUGGESTED HANDLING AND CURING: Material is ready to use as received. Store frozen to maintain consistent flow properties. Allow material to warm up to room temperature before opening container. As an adhesive, apply the 123-21 to one or both parts, then mate the parts and cure for one (1) hour at 150°C, or 30 minutes at 175°C, or 15 minutes at 200°C while maintaining pressure. 123-21 can be thinned with small amounts of CMI# 113-39 (fast drying), or #114-20 (slow drying) thinners.

STORAGE: Shelf Life -2 month at 25°C; or 6 months at –10°C.

B-STAGE PROCEDURE: Apply adhesive to substrate. Next apply heat to advance the curing to the non-tacky stage when cooled to room temperature. A temperature of 125°C for 1-2 minutes is required. B-Stage time is mass related. User is encouraged to experiment for optimum drying time at a given temperature. Store on release liner to prevent contamination.

STORAGE B-STAGED FILM: Shelf Life - 1 month @ 25°C; or 3 months @ -10°C

BONDING PROCEDURE: To use, carefully align parts to be bonded, apply uniform pressure to maintain location. Cure for15 minutes at 200°C or 30 minutes at 175°C, or 1 hour at 150°C. (Note cure times given are mass related timing should start after adhesive and substrates reach curing temperature.)

INSTRUCTIONS FOR USE WITH CMI 119-44: Add 2 parts of 119-44 to 100 parts of 123-21 by weight and mix until uniform. Cure 4 hours at 80°C, or 2 hours at 100°C. Pot life: 2-4 days at room temperature.

SAFETY AND HANDLING: Use with adequate ventilation. Keep away from sparks and open flames. Avoid prolonged contact with skin and breathing of vapors. Wash with soap and water to remove from skin.

All technical information is based on data obtained by CMI personnel and is believed to be reliable. No warranty is either expressed or implied with respect to results or possible infringements on patents.

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