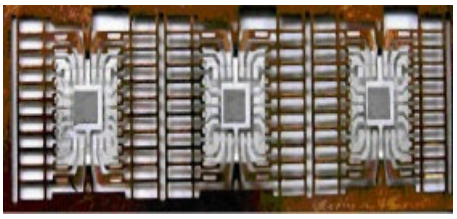
Reduce IC Packaging Costs with Screen-Printable B-Stage Epoxy

B-Stageable Thermally Conductive Epoxy Adhesive
Increases Product Performance and Controls Manufacturing Costs

Tyngsboro, MA, September 9, 2005 – The application team at Creative Materials, Inc., has introduced a screen-printable, b-stageable, highly thermally conductive epoxy adhesive for integrated circuit (IC) packaging. This material is designed to increase product performance through the use of b-staging, while reducing manufacturing costs through screen-printing. Creative Materials' 122-07(SP) features excellent thermal stability, outstanding chemical resistance and excellent high temperature properties. The thermal cure cycle produces cross-linked, void free bonds.

B-stage is an intermediate stage in the reaction of a thermosetting resin where the adhesive softens when heated at a low temperature (110°C -125°C) for a brief time period (minutes) and is non-tacky when cooled to room temperature.
At this stage the adhesive is not fully cured. With B-staging, the product can be held for a period of time prior to curing, without sacrificing performance. Attempts to use traditional epoxies in IC manufacturing have often created expensive production bottlenecks, because the components had to be assembled and cured immediately in small batches. B-staging eliminates these bottlenecks by allowing the IC manufacturing to proceed efficiently, with operations performed on larger batches.



IC Packaging Process

B-staging provides the added advantages of a very thin bond line that helps in the dissipation of heat and provides flexibility for mismatched substrates. Performance of Creative Materials' 122-07(SP) is increased by allowing solvent release without advancing the resin cross-linking. After b-staging, the adhesive and substrate can be held for a period of time before bonding, thus reducing the tendency of the adhesive to flow beyond location of application.

Creative Materials' 122-07(SP) employs the cost effective technology of screen-printing that enables high volume manufacturing. Applications for this material include, but are not limited to, die attach, printed circuit board fabrication, advanced material composites, sealing, and high performance coatings.

About Creative Materials, Inc.

Creative Materials, Inc. develops and markets specialty chemical products to customers world-wide. Founded in 1986, Creative Materials has its headquarters and production facilities in Tyngsboro, Massachusetts. Products from Creative Materials are used to manufacture RFID tags; electronic components for automobiles, computers, keyboards, and cell phones; medical electrodes and medical instruments; heating equipment; and aerospace devices. Creative Materials offers more than 1000 product formulations, and is ISO 9001 certified. For additional information please visit http://www.creativematerials.com/.

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