UV CURABLE ENCAPSULANT FOR HIGH RELIABILITY IC ENCAPSULATION

EAST HANOVER, N.J. - Zymet has introduced a high reliability UV curable encapsulant for IC encapsulation. **UVE-1017-2** cures in as little as 3 minutes, far less time than a conventional heat cured encapsulant. The fast cure increases line speed and productivity.

UVE-1017-2 is sensitive to 365 nm broadband radiation, otherwise known as the UV-A spectrum. Since this is the longer UV spectra, cure depths of 60-100 mils are easily achieved. Curing equipment is available from several independent vendors.

The encapsulant is suited for glob-top encapsulation. Its typical viscosity is only 50,000 cps at 68°C, even lower at higher temperatures, facilitating flow and wetting. Its thixotropy permits a dome-shaped glob. Average particle size of the filler is between 10-20 microns, with a maximum particle size of 50 microns, permitting the encapsulant to flow between narrowly spaced wire bonds.

In a chip-on-flex application, IC assemblies encapsulated with **UVE-1017-2** have passed rigorous tests, including thermal shock, thermal cycle, 85°C/85%RH, and pressure cooker testing. Contributing to the excellent results are the encapsulant's low coefficient of thermal expansion (17.5 ppm/°C), its high glass transition temperature (145°C), its excellent adhesion to organic substrates, including polyimide, and its low level of ionic contaminants.

Zymet is a manufacturer of microelectronics adhesives and encapsulants. Its products include die attach adhesives, substrate adhesives, and underfill encapsulants. Zymet first pioneered the use of UV curing materials when it developed and introduced a series of UV curable anisotropically conductive adhesives designed for chip-on-glass assembly.

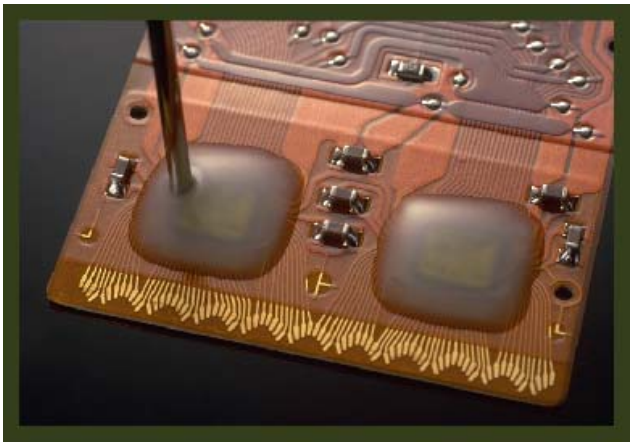

Photo: **UVE-1017-2** on a polyimide flexible circuit.

As a service to its customers, the company will encapsulate parts or assemblies at its East Hanover facility and return them for evaluation and stress testing. A self-leveling version is being developed for cavity-fill applications.

For more information, contact Zymet, Inc., East Hanover, NJ. Requests for information may be submitted by Email to info@zymet.com.

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