

Preliminary Product Information Sheet

(Note: These are typical properties to be used as a guide only, not a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results.)

| MATERI | AL ID: | EPO-TEK[®] T6116-1 (f | formerly 93-87-1) | |
|-----------------------|-------------|---|---|--|
| Date: | May 2013 | | | |
| Rev: | Ι | | | |
| Material Description: | | A single component, thermally conductive and electrically insulating die attach epoxy for in-line snap cure and JEDEC level semiconductor packaging. It can be used with many types of IC's and lead frames, and has versatility in cure either by traditional box oven means or snap cure on a wire bonding hot plate chuck. It is the replacement for EPO-TEK [®] T6116. | | |
| Number of | Components: | Single | | |
| Mix Ratio | by Weight: | N/A | Minimum Alternative Cure(s): | |
| Recommen | ded Cure: | 150°C/1 Hour | may not achieve performance properties below: | |
| Specific G | ravity: | 1.46 | 200°C / 1 Minute | |
| Pot Life: | | 7 Days | 175°C / 5 Minutes | |
| Shelf Life: | | One year at -40°C | | |

NOTE: Container(s) should be kept closed when not in use. Filled systems should be stirred thoroughly before mixing and prior to use.

MATERIAL CHARACTERISTICS:

| PHYSCIAL PROPERTIES: | | | | | |
|--------------------------------|---|--|--|--|--|
| Color (before cure): | Light yellow | | | | |
| Consistency | Smooth paste | | | | |
| Viscosity (23°C): @ 10 rpm | 20,830 cPs | | | | |
| Thixotropic Index: | 1.9 | | | | |
| Glass Transition Temp: | 102 ° C | | | | |
| Coefficient of Thermal Expans | Coefficient of Thermal Expansion (CTE): | | | | |
| Below Tg: | 46 x 10 ⁻⁶ in/in°C | | | | |
| Above Tg: | 131 x 10 ⁻⁶ in/in°C | | | | |
| Shore D Hardness: | 70 | | | | |
| Die Shear @ 23°C: | 27 Kg | | | | |
| Degradation Temp: | 408 ° C | | | | |
| Weight Loss: @ 200°C | < 0.05 % | | | | |
| @ 250°C | 0.13 % | | | | |
| @ 300°C | 0.35 % | | | | |
| Operating Temp: | | | | | |
| Continuous: | $-55^{\circ}C \text{ to } 250^{\circ}C$ | | | | |
| Intermittent: | $-55^{\circ}C \text{ to } 350^{\circ}C$ | | | | |
| Storage Modulus: | 534,999 psi | | | | |
| Particle Size: | ≤ 20 microns | | | | |
| FI FCTRICAL AND THERMAL PROPER | RTIFS. | | | | |
| Thermal Conductivity: | 0.48 W/mK | | | | |

The data above is INITIAL only - it may be changed at anytime, for any reason without notice to anyone. It is provided only as a guide for evaluation/consideration.

*These material characteristics are typical properties that are based on a limited number of samples/batches. All properties are based on the cure indicated above. Some properties may vary as manufactured quantities are scaled up to commercialized production levels.

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