



Product Information Sheet

EPO-TEK® OE100-T

| | |
|----------------------|------------------------------|
| Date: | December 2023 |
| Rev: | III |
| No. of Components: | Two |
| Mix Ratio by Weight: | 10 : 1 |
| Specific Gravity: | Part A: 1.12 |
| Pot Life: | 3 Hours |
| Shelf Life- Bulk: | One year at room temperature |

Recommended Cure: 150°C / 1 Hour

Minimum Alternative Cure(s):

May not achieve performance properties listed below

150°C / 1 Minute

80°C / 30 Minutes

NOTES:

- Container(s) should be kept closed when not in use.
- Filled systems should be stirred thoroughly before mixing and prior to use.
- Performance properties (rheology, conductivity, others) of the product may vary from those stated on the data sheet when bi-pak/syringe packaging or post-processing of any kind is performed. Epoxy's warranties shall not apply to any products that have been reprocessed or repackaged from Epoxy's delivered status/container into any other containers of any kind, including but not limited to syringes, bi-paks, cartridges, pouches, tubes, capsules, films or other packages.
- Syringe packaging will impact initial viscosity and effective pot life, potentially beyond stated parameters.
- **TOTAL MASS SHOULD NOT EXCEED 25 GRAMS**

Product Description: A two component, high Tg, high temperature grade epoxy designed for semiconductor, underfill, hard-disk drive and hybrid micro-electronics packaging applications. The epoxy can also be used for adhesive and sealing applications in electronics, optical, and medical devices.

Typical Properties: Cure condition: 150°C / 1 Hour Different batches, conditions & applications yield differing results.

Data below is not guaranteed. To be used as a guide only, not as a specification. * denotes test on lot acceptance basis

PHYSICAL PROPERTIES:

| | | |
|---|-----------------------|--|
| * Color (before cure): | Part A: White | Part B: Amber |
| * Consistency: | Smooth Flowable Paste | |
| * Viscosity (23°C) @ 50 rpm: | 4,500 - 7,000 | cPs |
| Thixotropic Index: | 2.9 | |
| * Glass Transition Temp: | ≥ 100 | °C (Dynamic Cure: 20-200°C/ISO 25 Min; Ramp -10-200°C @20°C/Min) |
| Coefficient of Thermal Expansion (CTE): | | |
| Below Tg: | 43 | x 10 ⁻⁶ in/in°C |
| Above Tg: | 165 | x 10 ⁻⁶ in/in°C |
| Shore D Hardness: | 87 | |
| Lap Shear @ 23°C: | > 2,000 | psi |
| Die Shear @ 23°C: | ≥ 10 | Kg 3,556 psi |
| Degradation Temp: | 468 | °C |
| Weight Loss: | | |
| @ 200°C: | 0.38 | % |
| @ 250°C: | 0.50 | % |
| @ 300°C: | 0.84 | % |
| Suggested Operating Temperature: | < 350 | °C (Intermittent) |
| Storage Modulus: | 244,296 | psi |
| * Particle Size: | ≤ 10 | microns |

ELECTRICAL AND THERMAL PROPERTIES:

| | |
|-----------------------------|-------------------------------|
| Thermal Conductivity: | N/A |
| Volume Resistivity @ 23°C: | ≥ 1 x 10 ¹³ Ohm-cm |
| Dielectric Constant (1KHz): | 3.08 |
| Dissipation Factor (1KHz): | 0.003 |

OPTICAL PROPERTIES @ 23°C:

| | | |
|------------------------|------------------|----|
| Spectral Transmission: | 88% @ 800 | nm |
| | > 94% @ 880-1600 | nm |
| Refractive Index: | 1.5657 @ 589 | nm |

This information is based on data and tests believed to be accurate. Epoxy Technology, Inc. makes no warranties (expressed or implied) as to its accuracy and assumes no liability in connection with any use of this product.

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