

Product Information Sheet

MATERIAL ID: EPO-TEK® OG198-54

Date: Apr 2013 **Rev:** VII **Material Description:**

Single component, low viscosity, high Tg, UV curable epoxy. Active alignment of optics, securing fibers into V-grooves and fiber pigtails are a few of its common applications. It can also be used for medical, hybrid and semiconductor device assembly. It is a "dual" cure chemistry, performance will

be enhanced by a thermal post-cure. Replacement version of EPO-TEK® OG198-50.

Number of Components: Single **Mix Ratio by Weight:** N/A

Recommended Cure: > 2 minutes @ 240-365 nm, depending on thickness - under an F-type Mercury lamp

Optional: 150°C /1 Hour to cure shadowed areas

Specific Gravity: 1.12 **Pot Life:** N/A

Shelf Life: One year refrigerated

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: To be used as a guide only, not as a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results; Cure condition: varies as required

* denotes test on lot acceptance basis

PHYSCIAL PROPERTIES:

* Color (before cure): Clear/Colorless
* Consistency Pourable liquid

* Viscosity (23°C): @ 100 rpm 200 - 450 cPs

* Glass Transition Temp: 131 °C (Post-Cure Dynamic Scan: 20-200°C; Ramp -10-200°C @ 20°C/Min)

Coefficient of Thermal Expansion (CTE):

Below Tg: 74 x 10⁻⁰ in/in°C Above Tg: 145 x 10⁻⁰ in/in°C

Shore D Hardness: 86

Die Shear @ 23°C: $\geq 10 \text{ Kg} = 3,400 \text{ psi}$

Degradation Temp: 369 °C

Weight Loss:

 @ 200°C
 0.24 %

 @ 250°C
 0.62 %

 @ 300°C
 1.80 %

Operating Temp:

Continuous: - 55°C to 200°C
Intermittent: - 55°C to 300°C
Storage Modulus: 449,431 psi

OPTICAL PROPERTIES @ 23°C:

Spectral Transmission: $\geq 97\%$ @ 460 - 1680 nmRefractive Index (uncured):1.5046 @ 589 nmRefractive Index (cured):1.5256 @ 589 nm

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