

# EPO-TEK® OG198-55

**Technical Data Sheet For Reference Only**Shadow Curable UV Epoxy

**Date:** Aug 2014

Rev: VII

No. of Components: Single Specific Gravity: 1.15
Pot Life: N/A

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**Shelf Life:** One year refrigerated

Recommended Cure: 100mW/cm<sup>2</sup> @ 240-365nm for > 2 minutes.

- depending on thickness - under an F-type Mercury lamp

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

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

**Product Description:** EPO-TEK® OG198-55 is a high viscosity, single component, electrically and thermally insulating, clear UV cure epoxy. It is the more thixotropic version of EPO-TEK® OG198-54.

#### **Typical Properties:**

To be used as a guide only, not as a specification. Different batches, conditions & applications yield differing results.

Cure condition: varies as required \* denotes test on lot acceptance basis Data below is not guaranteed.

#### PHYSICAL PROPERTIES:

\* Color (before cure): Cloudy

\* Consistency Smooth thixotropic paste

\* Viscosity (23°C): @ 100 rpm 1,200 - 2,000 cPs Thixotropic Index: 6.0

\* Glass Transition Temp: ≥ 120 °C (Dynamic Cure:20-200°C/ISO 25 Min; Ramp -10-200°C @ 20°C/Min)

**Coefficient of Thermal Expansion (CTE):** 

**Below Tg:**  $72 \times 10^{-6}$  in/in°C **Above Tg:**  $120 \times 10^{-6}$  in/in°C

Shore D Hardness: 85

Die Shear @ 23°C: ≥ 20 Kg 6,800 psi

 Degradation Temp:
 354 °C

 Weight Loss:
 @ 200°C
 0.23 %

 @ 250°C
 0.73 %

@ **300°C** 2.13 %

OperatingTemp: : Continuous: - 55°C to 200°C Intermittent: - 55°C to 300°C

Storage Modulus: 489,872 psi

\* Particle Size: ≤ 20 microns

### **OPTICAL PROPERTIES @ 23°C:**

**Spectral Transmission:** ≥ 97% @ 560 - 1,680 nm

Refractive Index (uncured): 1.5023 @ 589 nm Refractive Index (cured): 1.5196 @ 589 nm

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## EPO-TEK® OG198-55 Advantages & Suggested Application Notes:

- UV shadow cure allows for enhanced performance after a thermal post cure and significant cure propagation into shadow area.
- High Tg.
- Strong transmission above 560 nm.
- Suggested Applications:
- Active alignment of optics
- Bonding fibers to V-grooves
- ♦ Fiber pigtails
- ♦ Medical devices
- ♦ Alignment in optoelectronic hybrids
- ♦ Semiconductor devices
- ♦ General bonding including structural adhesive in commercial LED lighting

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