

EPO-TEK® OG198-55

Recommended Cure

Iron-Doped Mercury Flood Lamp

100 mW/cm2 @ 240-365 nm

Alternative Cures*

Iron-Doped Mercury Spot Lamp
365nm LED Flood Lamp

Pulsed Mercury Lamp

UV Cure is complete after 24 hours

from UV Exposure

Contact Technical Services for application-

specific variations

Technical Data Sheet For Reference Only

Shadow Curable UV Epoxy

> 30 sec.

> 30 sec.

> 30 sec. > 30 sec.

Date: April 2017 Rev: VIII
No. of Components: Single
Specific Gravity: 1.15
Pot Life: N/A

Shelf Life- Bulk: One year refrigerated

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) may vary from those stated below when syringe packaging and/or
 post-processing is required.
- Thermal post-cure beneficial contact techserv@epotek.com for recommendations.

<u>Product Description:</u> EPO-TEK[®] OG198-55 is a high viscosity, single component, electrically and thermally insulating, translucent UV cure epoxy. It is the more thixotropic version of EPO-TEK® OG198-54.

<u>Typical Properties:</u> Cure condition: varies as required *denotes test on lot acceptance basis Data below is not guaranteed. To be used as a guide only, not as a specification. Different batches, conditions & applications yield differing results.

PHYSICAL PROPERTIES:

* Color (before cure): Translucent

* 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 x 10⁻⁶ in/in°C **Above Tg:** 120 x 10⁻⁶ in/in°C

Shore D Hardness: 85

Die Shear @ 23°C:

 UV Cure:
 \geq 20 Kg
 7,112
 psi

 UV Cure + 23°C/24 Hours:
 27.7 Kg
 9,850.1
 psi

 UV Cure + 80°C/1 Hour:
 27.2 Kg
 9,672.3
 psi

 Degradation Temp:
 354 °C

 Weight Loss:
 @ 200°C
 0.23 %

 @ 250°C
 0.73 %

 @ 300°C
 2.13 %

Suggested Operating Temperature: < 300 °C (Intermittent)

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

Epoxies and Adhesives for Demanding Applications™

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.

EPOXY TECHNOLOGY, INC.

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Technical Data Sheet For Reference Only Shadow Curable UV Epoxy

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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