

EPO-TEK® OG198-54

Technical Data Sheet For Reference Only

Shadow Curable UV Epoxy

Date: June 2018 Rev: XIV
No. of Components: Single
Specific Gravity: 1.12
Pot Life: N/A

Shelf Life- Bulk: One year refrigerated

| Recommended Cure | |
|--|-----------|
| Iron-Doped Mercury Flood Lamp 100 mW/cm² @ 240-365 nm | > 30 sec. |
| Alternative Cures* | |
| Iron-Doped Mercury Spot Lamp | > 30 sec. |
| 365nm LED Flood Lamp | > 30 sec. |
| Pulsed Mercury Lamp | > 30 sec. |
| UV Cure is complete after 24 hours | |
| from UV Exposure * Contact Technical Services for applications | |

specific variations

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.
- If product crystalizes in storage, place container in warm oven (<40°C) until crystallization disappears. Please refer to Tech Tip #7 on website.

<u>Product Description:</u> EPO-TEK[®] OG198-54 is a single component, low viscosity, electrically and thermally insulating UV cure epoxy.

<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.

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|--|----------------------|--|
| PHYSICAL PROPERTIES: | | |
| * Color (before cure): | Clear/Colorless | |
| * Consistency: | Pourable liquid | |
| * Viscosity (23°C) @ 100 rpm: | 200 - 450 | cPs |
| Glass Transition Temp: | 131 | °C (Dynamic Cure:20-200°C/ISO 25 Min; Ramp -10-200°C @ 20°C/Min) |
| Coefficient of Thermal Expansion (CTE): | | |
| Below Tg: | | x 10 ⁻⁶ in/in°C |
| Above Tg: | 145 | x 10 ^{-o} in/in ^o C |
| Shore D Hardness: | 86 | |

Die Shear:

 UV Cure:
 ≥ 10 Kg
 3,556 psi

 UV Cure + 23°C/24 Hours:
 20.8 Kg
 7,396.5 psi

 UV Cure + 80°C/1 Hour:
 22.2 Kg
 7,894.3 psi

 Degradation Temp:
 369 °C

 Weight Loss:
 @ 200°C
 0.24 %

 @ 250°C
 0.62 %

 @ 300°C
 1.80 %

Suggested Operating Temperature: < 300 °C (Intermittent)

Storage Modulus: 449,431 psi

OPTICAL PROPERTIES @ 23°C:

 Spectral Transmission:
 ≥ 97% @ 460-1,680 nm

 Refractive Index (uncured):
 1.5046 @ 589 nm

 Refractive Index (cured):
 1.5256 @ 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.



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EPO-TEK® OG198-54 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 in the Visible and IR regions.
- Suggested Applications:
 - Active alignment of optics
 - Bonding fibers to V-grooves
 - o Fiber pigtails
 - Alignment in optoelectronic hybrids
 - Semiconductor devices