



**EPO-TEK<sup>®</sup> HYB-353ND-HV (formerly 113-114-1)**

**Date:** 12/5/2016

**Rev:** V

**Material Description:**

A two component, high temperature epoxy for semiconductor, hybrid, fiber optic and medical applications. It is designed to have similar cured performance to EPO-TEK<sup>®</sup> 353ND; modified to allow for initial UV tacking. It is a higher viscosity version of EPO-TEK<sup>®</sup> HYB-353ND.

**Number of Components:** Two

**Mix Ratio by Weight:** 100 : 5

**Recommended Cure:** Initial Tack 100mW/cm<sup>2</sup> for 10 seconds @ 240-365 nm + 150°C/30 Minutes Thermal Cure

**Minimum Alternative Cure:** Initial Tack 100mW/cm<sup>2</sup> for 10 seconds @ 240-365 nm + 100°C/30 Minutes Thermal Cure

Initial Tack 100mW/cm<sup>2</sup> for 10 seconds @ 240-365 nm + 80°C/1 Hour Thermal Cure

**Specific Gravity:** Part A: 1.19 Part B:1.02

**Pot Life:** 2 Hours

**Shelf Life:** Six months refrigerated

**NOTES:**

- Container(s) should be kept closed when not in use.
- To prevent gelation, keep containers away from light sources.
- 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.
- Syringe packaging will impact initial viscosity and effective pot life, potentially beyond stated parameters.
- If product crystallizes in storage, place container in warm oven until crystallization disappears. Refer to Tech Tip #7 on website.
- **TOTAL MASS SHOULD NOT EXCEED 25 GRAMS**

**MATERIAL CHARACTERISTICS:** Cure Condition: Initial Tack 100mW/cm<sup>2</sup> for 10 seconds @ 240-365nm + 150°C/30 Minutes Thermal Cure  
*To be used as a guide only, not as a specification. Different batches, conditions and applications yield differing results.*

<b>PHYSICAL PROPERTIES:</b>	
<b>Color (before cure):</b>	Part A: Clear Part B: Amber
<b>Consistency:</b>	Pourable liquid
<b>Viscosity (23°C) @ 10 rpm:</b>	11,019 cPs
<b>Thixotropic Index:</b>	N/A
<b>Glass Transition Temp:</b>	116 °C (Dynamic Cure:20-200°C/ISO 25 Min; + Ramp -10-200°C @ 20°C/Min)
<b>Coefficient of Thermal Expansion (CTE):</b>	
<b>Below Tg:</b>	48 x 10 <sup>-6</sup> in/in°C
<b>Above Tg:</b>	143 x 10 <sup>-6</sup> in/in°C
<b>Shore D Hardness:</b>	80
<b>Die Shear @ 23°C:</b>	28 Kg
<b>Degradation Temp:</b>	388 °C
<b>Weight Loss:</b>	
<b>@ 200°C</b>	< 0.05 %
<b>@ 250°C</b>	0.06 %
<b>@ 300°C</b>	1.83 %
<b>Suggested Operating Temperature:</b>	<300 °C (Intermittent)
<b>Storage Modulus:</b>	440,050 psi

<b>OPTICAL PROPERTIES @ 23°C:</b>	
<b>Spectral Transmission:</b>	≥ 50% @ 550 nm ≥ 95% @ 1,100-1,600 nm ≥ 98% @ 800-1,000 nm
<b>Index of Refraction:</b>	1.5556 @ 589 nm (uncured)

**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.**