



**EPO-TEK® HYB-353ND PMF Syringe**

**Date:** August 2024      **Rev:** IV

**Material Description:** A single component, high temperature hybrid epoxy for semiconductor, and fiber optic applications. It is designed to have similar cured performance to EPO-TEK® 353ND; modified to allow for initial UV tacking.

**Number of Components:** Single

**Mix Ratio by Weight:** N/A

**Recommended Cure:** **Initial Tack 100mW/cm<sup>2</sup> for 20 seconds @ 240-365 nm + 150°C/30 Minutes Thermal Cure**

**Minimum Alternative Cure:** Initial Tack 100mW/cm<sup>2</sup> for 20 seconds @ 240-365 nm + 100°C/30 Minutes Thermal Cure  
Initial Tack 100mW/cm<sup>2</sup> for 20 seconds @ 240-365 nm + 80°C/1 Hour Thermal Cure

**Specific Gravity:** 1.17

**Pot Life:** < 2 Hours

**Shelf Life:** Six months at -40°C

**NOTES:**

- To prevent gelation, keep containers away from light sources.
- 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.
- **TOTAL MASS SHOULD NOT EXCEED 25 GRAMS**

**MATERIAL CHARACTERISTICS:** Cure condition: Initial Tack 100mW/cm<sup>2</sup> for 20 seconds @ 240-365 nm + 150°C/30 Minutes

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

\* denotes test on lot acceptance basis      Data below is not guaranteed.

**PHYSICAL PROPERTIES:**

* <b>Color (before cure):</b>	Clear/Slight yellow
* <b>Consistency:</b>	Pourable liquid
* <b>Viscosity (23°C) @ 10 rpm:</b>	3,000 - 7,000 cPs
<b>Thixotropic Index:</b>	N/A
* <b>Glass Transition Temp:</b>	≥ 100 °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>	45 x 10 <sup>-6</sup> in/in°C
<b>Above Tg:</b>	138 x 10 <sup>-6</sup> in/in°C
<b>Shore D Hardness:</b>	78
<b>Die Shear @ 23°C:</b>	≥ 20 Kg    7,112 psi
<b>Degradation Temp:</b>	400 °C
<b>Weight Loss:</b>	
<b>@ 200°C</b>	0.06 %
<b>@ 250°C</b>	0.72 %
<b>@ 300°C</b>	2.09 %
<b>Suggested Operating Temperature:</b>	< 350 °C (Intermittent)
<b>Storage Modulus:</b>	542,731 psi

**OPTICAL PROPERTIES @ 23°C:**

<b>Spectral Transmission:</b>	≥ 50% @ 550 nm
	≥ 95% @ 1,100-1,600 nm
	≥ 98% @ 800-1,000 nm
<b>Index of Refraction:</b>	1.5259 @ 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.**

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