

# EPO-TEK® 353ND Family of Products for Fiber Optics

Epoxy Technology's **optical line of adhesives** is used for **bonding** and **protective coatings** in various fiber optic applications. Our epoxy adhesives are frequently used to bundle optical fibers and bond components in optoelectronic devices.



**Gold Standard**

EPO-TEK	CURE TEMPERATURE (minimal)	VISCOSITY @ 23°C (cPs)	GLASS TRANSITION TEMPERATURE (T <sub>g</sub> )	INDEX OF REFRACTION (N <sub>d</sub> )	SPECTRAL TRANSMISSION	POT LIFE (@ room temp)	SPECIAL FEATURES
<b>353ND</b>	150°C - 1 min 80°C - 30 min	@ 50 rpm 3,000 - 5,000	≥90°C	1.5694	>98% @ 800 - 1000nm >95% @ 1100 - 1600nm	≤3 hours	The "Gold Standard" of the fiber optic industry

**Longer Pot Life**

<b>383ND</b>	90°C - 30 min	@ 50 rpm 3,500 - 6,000	>100°C	1.5715	>90% @ 520 - 1600nm	8 hours	8 hour pot life version of 353ND
<b>323LP</b>	90°C - 30 min	@ 50 rpm 3,500 - 5,500	>100°C	1.5704	>90% @ 640 - 800nm >94% @ 820 - 1620nm	24 hours	24 hour pot life version of 353ND

**Higher T<sub>g</sub> & Viscosity**

<b>353ND-T</b>	150°C - 1 min 80°C - 30 min	@ 20 rpm 9,000 - 15,000	≥90°C	N/A	N/A	3 hours	Thixotropic version of 353ND with non-flowing properties
<b>0D2002</b>	150°C - 5 min 100°C - 30 min	@ 2.5 rpm 24,000 - 42,000	>140°C	1.5728	69% @ 600nm >98% @ 800 - 1640nm	4 hours	High T <sub>g</sub> epoxy, low modulus and good toughness

# EPO-TEK® Low Outgassing Adhesives For the Fiber Optic Industry (Per Telcordia® GR-1221)

Epoxy Technology adhesives have been tested in accordance with Telcordia Standard GR-1221, “*Generic Reliability Assurance Requirement for Passive Optical Components*”. This testing helps to assure the practical, useful life for certain manufactured devices relating to long term (25 year) performance.

## Test Methodology

For this test, the cured adhesive is heated from 50°C to 150°C at 5°C/minute in a TGA. A 0.1% weight loss for heat cured systems, and a 0.25% weight loss for UV cured systems is considered evidence of a properly cured system and meets the test requirements.

## EPO-TEK Products That Have Met or Exceeded the Standard

### Optical

Product	Weight Loss @ 200°C (<0.1%)	Cure Time	Cure Temp
323LP	0.31%	1 hour	150°C
<b>353ND</b>	<b>0.22%</b>	<b>1 hour</b>	<b>150°C</b>
375	0.06%	1 hour	150°C
383ND	0.28%	1 hour	150°C
0E184	0.07%	1 hour	150°C

**Gold Standard**

### UV Curing

0G116-31	0.30%	UV > 30 seconds	240 - 365nm
0G198-54*	0.24%	UV > 30 seconds	240 - 365nm

\* Material was post cured for 1 hour at 150°C

For additional information, please visit us at: [www.epotek.com](http://www.epotek.com), or email our Technical Services Group at: [techserv@epotek.com](mailto:techserv@epotek.com)

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