

# EPO-TEK® Halogen Free\* Epoxies

**Epoxy Technology, Inc.** offers a complete line of halogen free epoxies to satisfy your environmentally sensitive manufacturing needs.



## Optical Products

EPO-TEK®	No. of Components	Min. Cure Schedule	Viscosity @ 23°C (cPs)	Glass Transition Temperature (T <sub>g</sub> )	† Index of Refraction (Nd)	Pot Life	Chlorine (PPM)	Bromine (PPM)	Performance Features
353ND-LH Premium	Two	150°C - 1 min 80°C - 30 min	3,744 @ 50 rpm	99°C	1.5694	>2 hours	800	<100	High temperature epoxy designed for semiconductor, hybrid, fiber optic and medical applications.
353ND-LH Ultra	Two	150°C - 1 min 80°C - 30 min	3,720 @ 50 rpm	102°C	1.5672	>2 hours	200	<100	Similar to above, cleaner version of 353ND-LH Premium.
383ND-LH Premium	Two	90°C - 30 min	4,175 @ 50 rpm	110°C	1.5715	8 hours	900	<100	Slightly longer pot life version of 353ND.
383ND-LH Ultra	Two	90°C - 30 min	4,001 @ 50 rpm	116°C	1.5715	8.5 hours	200	<100	Similar to above, cleaner version of 383ND-LH Premium.
323LP-LH Premium	Two	90°C - 30 min	4,142 @ 50 rpm	118°C	1.5703	24 hours	800	<100	Longer pot life version of 353ND, designed for semiconductor, fiber optic and hard disk drive applications.
323LP-LH Ultra	Two	90°C - 30 min	3,869 @ 50 rpm	117°C	1.5703	24 hours	200	<100	Similar to above, cleaner version of 323LP-LH Premium.
OD2003-LH Premium	Two	80°C - 1 hour	8,300 @ 20 rpm	88°C	1.5528	1 hour	800	<100	Low temperature curing, nano rubber toughened epoxy, with excellent shear strength and vibration dampening properties.

Premium designates products with ≤ 900 ppm Chlorine, Ultra designates products with ≤ 200 ppm Chlorine

Note: Halogen testing was performed by an outside, independent testing laboratory. † Uncured @ 589nm



### \* Halogen Free Definition

Based on IEC (IEC 61249-2-21) Definition

- ≤ 900 ppm maximum Chlorine
- ≤ 900 ppm maximum Bromine
- ≤ 1500 ppm maximum total Halogens



**EPOXY TECHNOLOGY**  
Innovative Epoxy Adhesive Solutions for Over 45 Years™

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## Thermally Conductive Products

EPO-TEK®	No. of Components	Min. Cure Schedule	Viscosity @ 23°C (cPs)	Glass Transition Temperature (T <sub>g</sub> )	Thermal Conductivity (W/m <sup>2</sup> K)	Pot Life	Chlorine (PPM)	Bromine (PPM)	Performance Features
TJ1104-LH	Single	200°C - 5 min 140°C - 40 min	77,414 @ 1 rpm	117°C	0.48	>7 days	400	<100	Black, electrically insulating die attach adhesive with extended pot life.
TJ1183-LH	Single	150°C - 1 hour	40,139 @ 10 rpm	108°C	0.38	9 days	<100	<100	Electrically insulating die attach adhesive with extended pot life.
TJ2183-LH	Two	150°C - 1 hour	40,803 @ 10 rpm	112°C	0.38	9 days	<100	<100	Two component version of TJ1183-LH.
TV1002	Single	150°C - 1 hour, +275°C - 1 hour	350,000 - 550,000 @ 0.5 rpm	≥200°C	0.76	28 days	800	<100	Black, screen printable polyimide adhesive with high T <sub>g</sub> and low outgassing, designed for semiconductor wafer passivation applications.

## Electrically & Thermally Conductive Products

EPO-TEK®	No. of Components	Min. Cure Schedule	Viscosity @ 23°C (cPs)	Glass Transition Temperature (T <sub>g</sub> )	Volume Resistivity (ohm-cm)	Pot Life	Chlorine (PPM)	Bromine (PPM)	Performance Features
EK1000	Single	200°C - 30 min	1,800 - 3,600 @ 100 rpm	>80°C	<0.00009	2 weeks	100	<100	Silver-filled adhesive that exhibits exceptional thermal and electrical conductivity making it ideal for high power LED die attach applications.
EK2000	Two	200°C - 30 min	1,686 @ 100 rpm	104°C	<0.00009	2 weeks	100	<100	Two component version of EK1000.
H20E	Two	175°C - 45 sec 80°C - 3 hours	2,200 - 3,200 @ 100 rpm	≥80°C	≤0.0004	2.5 days	<100	<100	Silver-filled epoxy system designed specifically for chip bonding in microelectronic and optoelectronic applications.
H20E-D	Two	175°C - 45 sec 100°C - 2 hours	1,400 - 1,900 @ 100 rpm	≥80°C	0.0004	3 days	<100	<100	Version of H20E designed primarily for enhanced dispensability.
H20E-MP	Two	150°C - 5 min	2,200 - 3,200 @ 100 rpm	≥80°C	≤0.0004	2 days	700	<100	Version of H20E designed specifically to meet the requirements pertaining to MIL-STD 883/Test Method 5011 for military hybrids.
H20S-D	Two	175°C - 45 sec 100°C - 45 min	1,342 @ 100 rpm	70°C	0.0001	2-3 days	<100	<100	Silver-filled epoxy with a smooth, thixotropic consistency. Stamping version of H20E designed primarily for enhanced dispensing.
H35-175MP	Single	180°C - 1 hour 165°C - 1.5 hours	22,000 - 28,000 @ 10 rpm	≥ 100°C	≤0.0005	28 days	200	<100	Silver-filled epoxy designed specifically to meet the requirements pertaining to MIL-STD 883/Test Method 5011 for military hybrid die and component attach.

## ABOUT US

Since 1966, Epoxy Technology, Inc. (EPO-TEK®) has manufactured high quality specialty adhesives for advanced industries world-wide. As leaders in the industry, superior product quality, exceptional customer service and unsurpassed technical assistance are the foundation of our business.



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