

*“Fiber-Optic
Industry Standard”
EPO-TEK® 353ND...
...Now Available with
Enhanced Levels of
Performance*

Hybrid Chemistry Adhesives For Optoelectronics



UV Hybrid Adhesive Benefits

- Overall process improvement
- Lower stress and less shrinkage
- Easier handling
- Tack free in 10-20 seconds
- 85°C/85%RH resistance, comparable to 353ND

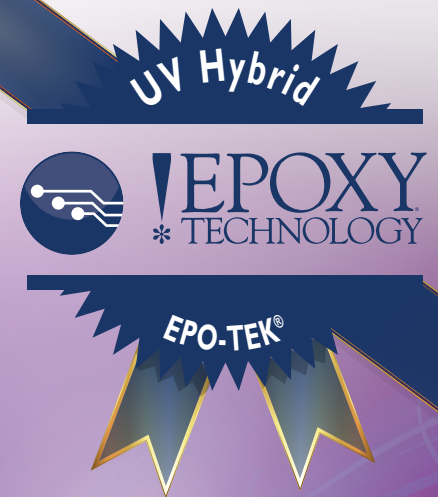
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**High Performance Line
of
UV Hybrid Adhesives**



EPO-TEK® Epoxy/UV Hybrid Adhesives



Traditional Epoxy

353ND Modified Epoxy/UV Hybrid Products

	353ND	HYB-353ND	HYB-353ND-LV	HYB-353ND-HV	HYB-353ND-TX2	HYB-353ND-TX3
	Industry GOLD Standard	Viscosity match of 353ND	Low viscosity, fast tack	Higher viscosity, fast tack	Thixo version TI = 1.6	Thixo version TI = 1.3
Viscosity (@10 rpm)	3,000-5,000 cPs	3,000-5,000 cPs	800-1,300 cPs	9,000-12,000 cPs	20,000-30,000 cPs	25,000-40,000 cPs
Pot Life	<3 hrs	2 hrs	20 hrs	2 hrs	2 days	2 days
Tg (°C)	≥90	109	83	116	105	89
Cure Condition	150°C/1 hr	UV 20 sec @ 100mW/cm ² +150°C/30min	UV 10 sec @ 100mW/cm ² +150°C/30min	UV 10 sec @ 100mW/cm ² +150°C/30min	UV 10 sec @ 100mW/cm ² +150°C/30min	UV 10 sec @ 100mW/cm ² +150°C/30min
Degradation Temp (°C)	412	400	400	388	410	399
Weight Loss	0.22%	0.06%	0.08%	non detectable	0.05%	0.19%
Die Shear (kg)	30.6	24	19	28	17	18
Spectral Transmission	≥95% @ 1100-1600nm ≥98% @ 800-1000nm	≥95% @ 1100-1600nm ≥98% @ 800-1000nm	≥95% @ 1100-1600nm ≥98% @ 800-1000nm	≥95% @ 1100-1600nm ≥98% @ 800-1000nm	≥95% @ 1100-1600nm ≥98% @ 800-1000nm	≥95% @ 1100-1600nm ≥98% @ 800-1000nm
*Index of Refraction	1.5694	1.5547	1.5221	1.5556	†N/M	†N/M

Viscosity is typical until a value range is established

Lower temperature cures (≥80°C) are possible depending upon application

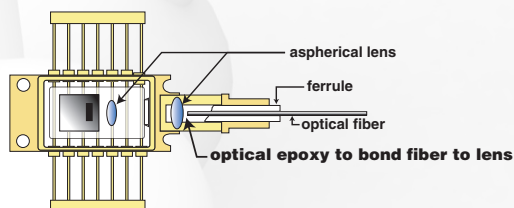
* uncured at 589nm
† not measured

Process Improvement

Align → **Hold/Tack (with UV)** → **Final Processing (with Heat)**

- Higher throughput
- Easier handling
- Tack Free in 10-20 seconds
- 85°C/85%RH resistance, comparable to 353ND

Typical UV Hybrid Application Butterfly Type LD Module



Available in premixed frozen syringes

