



EPO-TEK® offers an exclusive line of high performance UV curing adhesives based on both epoxy as well as acrylate systems. Our unique UV formulations provide superior performance with short cure times for a wide variety of applications. Many of our novel epoxy/UV formulations can be further enhanced by thermal post curing.

Current Product Listing for EPO-TEK® UV Adhesives

Epoxy-Based

Thermal Post Cure - Increases the degree of conversion; enhancing performance

UV + Thermal Post Cure (typically 80-150°C) for Enhanced Performance

| EPO-TEK® | CURE CONDITIONS (minimal) | VISCOSITY @ 23°C (cPs) | GLASS TRANSITION TEMPERATURE (T _g) | HARDNESS | INDEX OF REFRACTION Nd* | SPECTRAL TRANSMISSION | UV TRANSMISSION % AT 400nm | PERFORMANCE FEATURES |
|-----------|--------------------------------------------------|--------------------------------|------------------------------------------------|----------|-------------------------|--------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------|
| 0G116 | 100mW/cm ² @ 240 – 365nm for > 30 sec | @ 2.5 rpm 80,000 - 10,500 | ≥135°C | n/a | 1.5892 | 89% @ 400nm ≥98% @ 560 – 1660nm | 89.310% | Higher viscosity version of 0G116-31, high chemical resistance, Tg & index, very high strength |
| 0G116-31 | 100mW/cm ² @ 240 – 365nm for > 30 sec | @ 10 rpm 20,000 – 30,000 | ≥115°C | 83D | 1.5842 | ≥92% @ 500nm ≥96% @ 660 – 1640nm | 83.211% | High chemical resistance, high Tg & high index |
| 0G142-87 | 100mW/cm ² @ 240 – 365nm for > 30 sec | @ 100 rpm 250 – 600 | ≥100°C | 82D | 1.5058 | >97% @ 580 – 1660nm | 83.110% | Low viscosity, excellent bond strength, moisture resistance |
| 0G142-95 | 100mW/cm ² @ 240 – 365nm for > 2 min | @ 100 rpm 534 | N/A | 82D | 1.5123 | ≥97% @ 580 – 1680nm | 83.110% | Low viscosity, excellent bond strength, moisture resistance |
| 0G142-112 | 100mW/cm ² @ 240 – 365nm for > 30 sec | @ 100 rpm 1,200 – 1,700 | ≥90°C | 83D | 1.5560 | >97% @ 500 – 1660nm | 80.334% | Medium viscosity, high moisture resistance, exceptional bond strength |
| 0G159-2 | 100mW/cm ² @ 240 – 365nm for > 30 sec | @ 2.5 rpm 100,000 – 140,000 | ≥30°C | 69D | 1.5715 | ≥98% @ 580 – 2000nm | 90.847% | Thixotropic, contains 1 mil glass beads, excellent moisture resistance |
| UJ1190 | 100mW/cm ² @ 240 – 365nm for > 60 sec | @ 100 rpm 501 | 100°C | 80D | 1.4993 | ≥80% @ 380 – 2440nm ≥94% @ 520 – 1560nm | 86.567% | Low viscosity, good for thick sections |
| UD1355 | 100mW/cm ² @ 240 – 365nm for > 90 sec | @ 100 rpm 447 | 36°C | 77D | 1.4925 | ≥96% @ 800 – 2200nm ≥99% @ 360 – 780nm | 99.921% | Optically clear, low viscosity, resists discoloration during solder reflow |

UV + Thermal Post Cure (Typically 80-150°C) for Shadow Curing <5mm shadow cure with proper thermal cure

| EPO-TEK® | CURE CONDITIONS (minimal) | VISCOSITY @ 23°C (cPs) | GLASS TRANSITION TEMPERATURE (T _g) | HARDNESS | INDEX OF REFRACTION Nd* | SPECTRAL TRANSMISSION | PERFORMANCE FEATURES |
|------------|--------------------------------------------------|----------------------------|------------------------------------------------|----------|-------------------------|-----------------------|-------------------------------------------------|
| † 0G198-54 | 100mW/cm ² @ 240 – 365nm for > 30 sec | @ 100 rpm 200 – 450 | 131°C | 86D | 1.5256 | ≥97% @ 460 – 1680nm | Low viscosity, high Tg, excellent bond strength |
| † 0G198-55 | 100mW/cm ² @ 240 – 365nm for > 30 sec | @ 100 rpm 1,200 – 2,000 | >120°C | 85D | 1.5196 | ≥97% @ 560 – 1680nm | Thixotropic, high viscosity, high Tg |

* Cured index measured at 589nm † 150°C/1 hour to cure shadowed areas optional

UV Cure Only

| EPO-TEK® | CURE CONDITIONS (minimal) | VISCOSITY @ 23°C (cPs) | GLASS TRANSITION TEMPERATURE (T _g) | HARDNESS | INDEX OF REFRACTION Nd* | SPECTRAL TRANSMISSION | PERFORMANCE FEATURES |
|----------|--------------------------------------------------|----------------------------|------------------------------------------------|----------|-------------------------|-------------------------------------------|-------------------------------------------------------------------|
| 0G133-7 | 100mW/cm ² @ 320 – 500nm for > 2 min | @ 100 rpm 150 – 450 | ≤10°C | 81A | 1.5060 | ≥90% @ 440 – 580nm ≥96% @ 800 – 1600nm | Low viscosity, flexible, high flow version of 0G133-8 |
| 0G133-8 | 100mW/cm ² @ 240 – 365nm for > 90 sec | @ 100 rpm 1,000 – 1,500 | ≤10°C | 65A | 1.5244 | ≥90% @ 580 – 800nm ≥95% @ 820 – 1660nm | Thixotropic, low T _g & hardness, excellent flexibility |
| 0G142 | 100mW/cm ² @ 240 – 365nm for > 30 sec | @ 20 rpm 9,000 – 15,000 | ≥95°C | 86D | 1.5809 | ≥92% @ 440 – 620nm ≥97% @ 660 – 1640nm | Medium viscosity, high strength, moisture resistance |
| 0G154-1 | 100mW/cm ² @ 240 – 365nm for > 30 sec | @ 5 rpm 26,000 – 34,000 | 128°C | 80D | 1.5692 | 97% @ 500 – 1660nm | High viscosity, high T _g , low modulus |

* Cured index measured at 589nm

Full Line of products at: epotek.com

UV Adhesive Expert advice at: techserv@epotek.com

Acrylate-Based

UV Cure Only

| EPO-TEK® | CURE CONDITIONS (minimal) | VISCOSITY @ 23°C (cPs) | GLASS TRANSITION TEMPERATURE (T _g) | HARDNESS | INDEX OF REFRACTION Nd* | SPECTRAL TRANSMISSION | PERFORMANCE FEATURES |
|----------|-------------------------------------------------|----------------------------|------------------------------------------------|----------|-------------------------|-------------------------------------|-------------------------------------------------------------------------------------------|
| 0G603 | 100mW/cm ² @ 240 – 365nm for > 5 sec | @ 100 rpm 150 – 250 | ≥70°C | 84D | 1.5037 | ≥98% @ 420 – 1600nm | Low viscosity, fast cure |
| 0G653 | 100mW/cm ² @ 240 – 365nm for > 1 sec | @ 100 rpm 650 – 850 | 65°C | 76D | 1.5106 | ≥83% @ 380nm ≥97% @ 440 – 2220nm | Low viscosity, green colored, light blocking properties, very fast cure (1-3 sec @ 365nm) |
| 0G675 | 100mW/cm ² @ 240 – 365nm for > 2 sec | @ 100 rpm 2,000 – 5,000 | ≥5°C | 70A | 1.4790 | ≥98% @ 400 – 1660nm | Medium viscosity, fast cure, low T _g |

* Cured index measured at 589nm



Preferred Packaging for EPO-TEK® UV products is a single component syringe.

EPO-TEK® syringes offer many advantages:

- Increased reliability and consistency
- Ease of use - no mixing, less waste, lower environmental impact
- Increased productivity - cost effective

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UV ADHESIVES