



ECLIPSE® Light-Cure Systems

Solving problems...*with the speed of light*



ECLIPSE 400 Series of Flexible Potting Compounds
ECLIPSE 800 Series of Deep-Cure Sealants
ECLIPSE 900 Series of Cure-In-Place Gaskets

Next Generation Technology

ECLIPSE Light-Cure Systems feature innovative UV technology for bonding, sealing, potting, encapsulating and gasketing. The ECLIPSE 400 and 800 Series cure in shadowed areas and deeper than current UV polymer systems. ECLIPSE 901 produces instant gasketing in any shape or size.

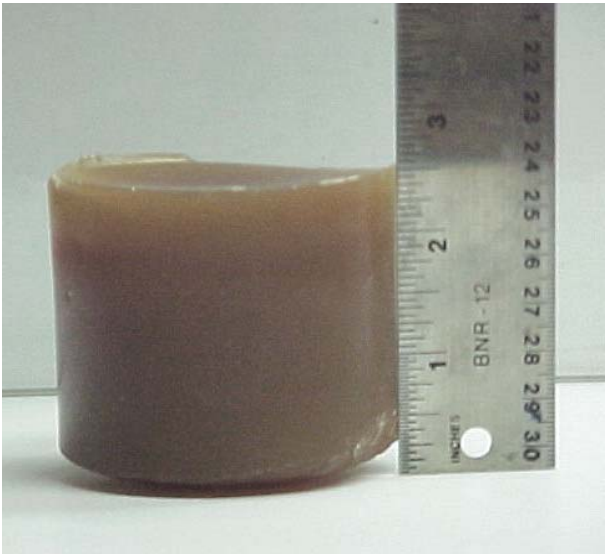
ECLIPSE Light-Cure Systems deliver the advantages of current UV-polymers with the additional benefits of the next generation technology:

- Increase production with rapid cure
- Reduce work in process
- Eliminate mixing and metering equipment
- Eliminate waste from mixing errors and short gel times
- Streamline process flow for “just-in-time production”

ECLIPSE Light-Cure Systems contain no solvent, volatile organic compounds (VOC), acrylic acid or n-vinyl pyrrolidone (NVP). Their unique chemistry generates no residual acetic acid.

The ECLIPSE 400 Series of Flexible Potting Compounds and 800 Series of Deep-Cure Sealants feature our patent-pending deep-cure mechanism. UV light initiates the cure, and a unique chemistry completes the polymerization using a self-propagating, thermal cure. This mechanism cures even in areas shaded from direct UV exposure.

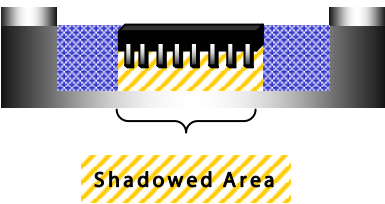
Conventional UV-curable polymers are limited to ¼” in depth and may not cure under shadowed areas. ECLIPSE Light-Cure Systems can cure parts greater than two inches in depth. Manufacturers can now realize the benefits of UV technology on a wider range of geometries.



ECLIPSE 401 cures to depths greater than 2 ½”

ECLIPSE Light-Cure Systems are unique potting compounds that offer the flexibility and low- service temperature properties of a urethane while maintaining the toughness and high service temperature properties of an epoxy.

They also offer excellent chemical resistance, temperature tolerance, and electrical properties.



ECLIPSE Light-Cure Systems cure under components without direct UV light exposure.

Electronic module potted with ECLIPSE 401 to ½” with complete cure in shadowed areas

ECLIPSE 400 Series of Flexible Potting Compounds and 800 Series of Deep-Cure Sealants

| Epoxy | Key Attributes | Applications |
|-------|---|-----------------------------|
| 401 | Low viscosity, soft, low stress, high service temperature | Large mass potting |
| 402 | Low viscosity, flexible, low stress, high service temperature, more reactive than ECLIPSE 401 | Medium-large mass potting |
| 404 | Very low viscosity, high service temperature, most reactive of ECLIPSE 400 Series | Small mass potting, sealing |
| 802 | Low viscosity, soft potting, low service temperature | Large mass potting |
| 803 | Toughened, filled, high service temperature | Sealing, Encapsulating |

ECLIPSE 902 Cure-in-Place Gasket (CiPG) produces gaskets of any shape and size within seconds. This thick liquid forms a high strength, 100%-solids, elastomer when exposed to UV-A light. The cured gaskets provide excellent environmental resistance and produce an effective seal to air and to some fluids and gases.

One product replaces many preformed gaskets and reduces inventory to a single item. The uncured ECLIPSE 902 is a high-viscosity liquid that maintains its shape until cured. It produces gaskets in virtually any shape and on multiple planes. It can produce gaskets up to 150 mils thick.

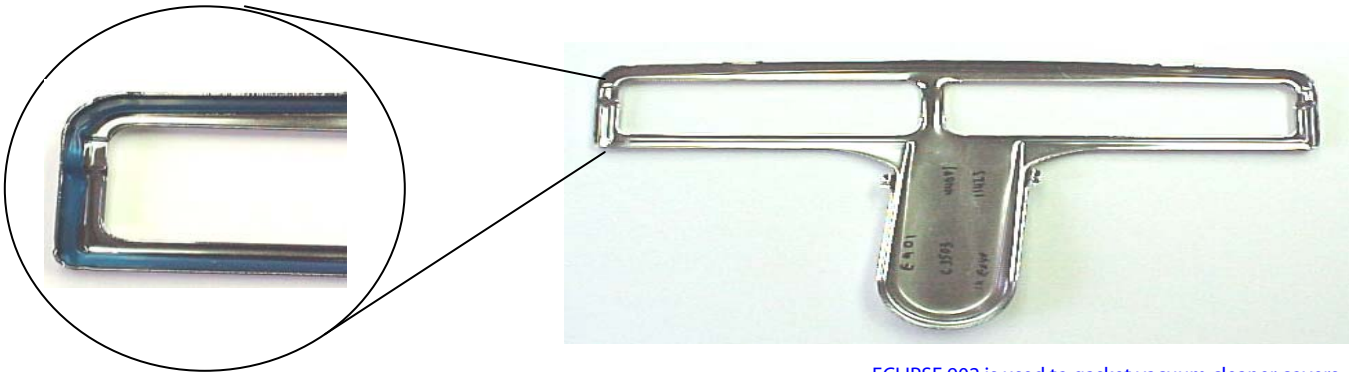
ECLIPSE 902 improves operating efficiency when it replaces preformed gaskets. It is easily dispensed with hand-held cartridges or with automated dispensing equipment. ECLIPSE 902 supports the economic automation of high volume assembly. A programmable dispenser can produce multiple gasket designs, eliminating inventory, speeding up line changes and reducing labor. Gasket users can eliminate designing, purchasing, and handling preformed gaskets.

ECLIPSE 902 is also an excellent alternative to silicone-based CiPG used in moderate or low temperatures. Conventional UV or RTV CiPGs requires 24 hours or more to cure. ECLIPSE takes only seconds to fully cure. ECLIPSE Light-Cure Systems offer the following processing advantages:

- More economical in use
- Faster cure (seconds v. hours)
- Tougher
- No odor issues
- Increase utilization of floor space



ECLIPSE 902 forms a soft and flexible gasket on conduit covers



ECLIPSE 902 is used to gasket vacuum cleaner covers

ECLIPSE 902 Cure-in-Place Gasket

| Cured Property | Typical Value |
|------------------------------------|---------------|
| Hardness | 15 Shore A |
| Tensile strength, psi. | 100 |
| Ultimate elongation | 300% |
| Tear strength, pli. | 25 |
| Compression set, 70 hours at 25 °C | 13.0% |

Additional Information

Hardman® offers seven families of Light-Cure Polymers and also formulates custom products to meet unique processing and performance requirements.

The ECLIPSE™ family of UV curable products

ECLIPSE 100 Series of Conformal Coatings
ECLIPSE 200 Series of Medical Adhesives
ECLIPSE 300 Series of Adhesives
ECLIPSE 400 Series of Flexible Potting Compounds
ECLIPSE 700 Series of Acrylic Sealants
ECLIPSE 800 Series of Deep-Cure Sealants
ECLIPSE 900 Series of Cure-In-Place Gaskets

To request information on the complete line of ECLIPSE Light Cure Systems or to request technical data:

Contact us at: Royal Adhesives and Sealants, LLC
600 Cortlandt Street
Belleville, NJ 07109-3384
(888) 442-7362 Toll-free
(973) 751-3000 Phone
(973) 751-8407 Fax

Visit our web site at: www.royaladhesives.com