

Conformal Coatings

Conformal coatings protect substrates and component surfaces from destructive agents like moisture, dust, chemicals, and temperature extremes, that can compromise the lifespan and integrity of the electronic component. The conformal coatings we carry provide reliable protection in critical applications throughout the aerospace and defense, automotive, consumer electronics, and medical industries.

These materials can be purchased for your in-house manufacturing process or can be used with our conformal coating contract manufacturing services. We use a three or four axis robotic spray system for application. Using a robotic dispensing system allows us to deliver the highest quality coating service by ensuring repeatable coating thickness and precise coverage.

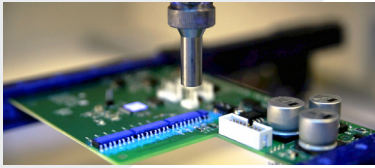
ECT offers these conformal coating types:

- Parylene
- Acrylic
- Polyurethane
- Silicone
- Epoxy
- Fluoropolymer

Working with ECT

Electronic Coating Technologies (ECT) has been helping manufacturers protect their electronics against extreme environments for over 25 years. We are experts in protective materials and application services. Our turnkey systems make working with ECT an unmatched experience. We partner with customers through every step of their application and design. For customers looking to take production in house, we also offer a broad portfolio of materials and state-of-the-art equipment from leading brands. When you work with ECT, you can expect unmatched expertise, customized solutions, and service for a total solution.





Our Most Commonly Used Conformal Coatings

Below are our ten most commonly used conformal coatings. These materials vary in coating type, each having their own strengths and weaknesses. Our technical team has over 25 years experience with conformal coatings and is available to help you select the best material for your specific application.

| Product | Coating Type | Description | Approvals |
|-------------------------|------------------------|---|---|
| Humiseal 1A33 | Polyurethane | Single component; no free isocyanates; fluoresces under UV light for easy inspection; chemically resistant; excellent moisture and environmental protection | MIL-I-46058C IPC-CC-830B RoHS Directive 2011/65/EC UL File Number E10569 |
| Humiseal 1A20 | Polyurethane | Single component; chemically resistant; fast curing; fluoresces under UV light for easy inspection; excellent moisture and environmental protection | MIL-I-46058C IPC-CC830 RoHS Directive 2002/95/EC UL File Number E105698 |
| Humiseal 1B31S | Acrylic | Single component; fast drying; outstanding flexibility; easily repaired; fluoresces under UV light for easy inspection | MIL-I-46058C IPC-CC-830 RoHS Directive 2002/95/EC |
| Humiseal 1B73 | Acrylic | Single component; fast drying; fluoresces under UV light for easy inspection; excellent moisture and environmental protection; also produced as pre-blended products, at a range of viscosities, suitable for a variety of application methods without further dilution | MIL-I-46058C IPC-CC-830 IEC61086 and IEC60664-3 ASTM G21 RoHS Directive EU 2015/863 |
| Humiseal UV40 | Acrylated Polyurethane | Single component; high solids; excellent chemical and moisture resistance; dual cure (light & moisture) for shadow areas; LED cure capability; fluoresces under UV light for easy inspection | IPC-CC-830 MIL-I-46058C IPC-J-STD-004 RoHS Directive 2015/863/EU China Standard GB30981-2020 |
| Dymax 984-LVUF | Acrylated Urethane | Single component; no solvents added; halogen free; dual cure (light & heat) for shadow areas; blue fluorescing; low viscosity; enhanced thermal shock performance | MIL-I-46058C IPC-CC-830-B UL 746C UL 94V-0 Flammability RoHS Directives 2015/863/EU |
| Dymax 9483 | Acrylated Urethane | Single component; no solvents added; halogen free; dual cure (light & moisture) for shadow areas; excellent thermal shock and corrosion resistance; great temperature/humidity performance; blue fluorescing; recommended for automotive applications | MIL-I-46058C IPC-CC-830-B Hyundai MS941-04 UL 94V-0 Flammability UL 746E RoHS Directives 2015/863/EU |
| Dymax 9-20557-LV | Acrylated Urethane | Single component; no solvents added; dual cure (light & heat) for shadow areas; lower viscosity for thin coatings; low modulus for enhanced thermal cycling performance | MIL-I-46058C IPC-CC-830-B RoHS Directives 2015/863/EU |
| Dymax 987 | Acrylated Urethane | Single component; no solvents added; low viscosity; blue fluorescing; excellent chemical resistance | MIL-I-46058C IPC-CC-830-B RoHS Directives 2015/863/EU |
| Dymax 9978-E | Acrylated Urethane | Single component; no solvents added; halogen free; dual cure (light & moisture) for shadow areas; blue fluorescing; low viscosity; excellent chemical resistance | MIL-I-46058C IPC-CC-830-B UL 94 V0 Flammability UL 746-E RoHS Directives 2015/863/EU |

ISO 9001:2015 & ISO 13485:2016 registered | ITAR & Controlled Goods Certified

USA NY | 15 Solar Drive, Clifton Park, NY 12065 | Tel: (877) 262-8328 | Fax: (518) 688-2047

CANADA | 7425 Tranmere Drive, Unit 1A, Mississauga, Ontario L5S 1L5 | Tel: (905) 866-6795 | Fax: (905) 866-6799

www.electroniccoating.com

© 2022-2025 Electronic Coating Technologies. All rights reserved. All trademarks in this guide, except where noted, are the property of, or used under license by Electronic Coating Technologies. Dymax is a registered trademark of Dymax Corporation. Humiseal is a registered trademark of Chase Corp.

Technical data provided is of a general nature and is based on laboratory test conditions. Electronic Coating Technologies (ECT) does not warrant the data contained in this bulletin. Any warranty applicable to the product, its application and use, is strictly limited to that contained in ECT's standard Conditions of Sale. ECT does not assume responsibility for test or performance results obtained by users. It is the user's responsibility to determine the suitability for the product application and purposes and the suitability for use in the user's intended manufacturing apparatus and methods. The user should adopt such precautions and use guidelines as may be reasonably advisable or necessary for the protection of property and persons. Nothing in this bulletin shall act as a representation that the product use or application will not infringe a patent owned by someone other than ECT or act as a grant of license under any ECT Patent. ECT recommends that each user adequately test its proposed use and application before actual repetitive use, using the data contained in this bulletin as a general guide.

ESS002 2/2025