



Light-Curable Adhesives and Coatings for Infotainment Systems and In-Cabin Electronics

- Cures in just seconds upon exposure to UV/Visible light
- One-component, solvent-free materials
- Fluorescing materials available for easy inspection of coverage
- Products with excellent thermal shock, moisture, and corrosion resistance
- IPC, MIL, and UL listed conformal coatings available

As infotainment systems and in-cabin electronics become standard in most automobiles, manufacturers search for more efficient ways to increase production, reliability, and quality of these components. Dymax can provide manufacturers with the adhesive and coating solutions needed to meet these goals. Our light-curable adhesives and coatings are ideal for use in a variety of automotive systems including radios, GPS modules, satellite navigation, telematics boxes, as well as portable navigators, power audio, and car multimedia among others.

Dymax light-curable materials are solvent free and one-part, requiring no mixing or prep before application. They cure in seconds with light, enabling fast processing, greater throughput, and ultimately cost savings. Materials are available with many innovative and patented technologies that turn problems like shadow areas, cure confirmation, and difficult inspection into non-issues.

Common Infotainment and In-Cabin Components

1. Digital Instrument Panel
2. E-Mirror
3. Central Control Display
4. Power Controls & Locks



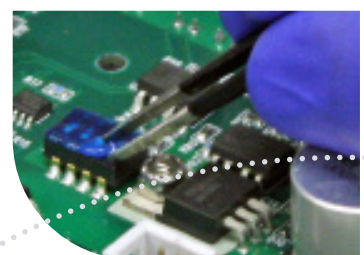
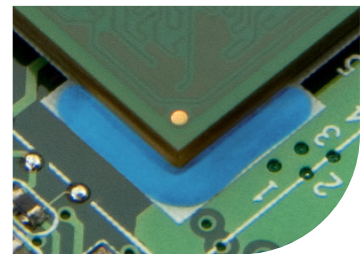
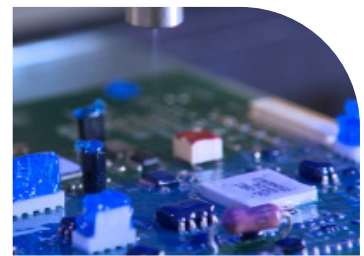
Available Light-Curable Materials

Conformal Coatings: Our solvent-free conformal coatings protect printed circuit boards from thermal shock, heat, humidity, and corrosive elements to keep infotainment systems operating at their best. IPC approved, MIL-I-46058C and UL listed grades are available.

Edgebond & Potting Adhesives: Specifically formulated for applications where protection and ruggedization is required, Dymax edgebond and potting materials bond to a variety of substrates and printed circuit board materials. These adhesives cure in just seconds upon exposure to UV light. Grades formulated with secondary heat cure are also available for designs with shadow areas. These materials are also available in fluorescing grades to facilitate easy inspection and with color changing See-Cure technology to confirm cure.

Encapsulants: Dymax encapsulants protect critical electronic components throughout the infotainment systems. Standard grades cure in seconds with UV/Visible light, but secondary moisture- or heat-cure grades are also available for applications where shadow areas are a problem.

Maskants: SpeedMask® peelable electronic masks are designed for the masking of printed circuit board components prior to conformal coating application or wave solder and reflow processes. They cure in seconds "on-demand" when exposed to UV/Visible light. The fast cure allows boards to be immediately processed without the need for racking or waiting. The masks have low odor and require no special venting. The cured materials also leave no silicone, ionic contamination, or corrosive residues.



| Product | UV/Visible Light | Heat | Moisture | Features | Viscosity, mPas | Durometer Hardness | Tensile at Break, MPa [psi] | Modulus of Elasticity, MPa [psi] |
|---|------------------|------|----------|---|-----------------|--------------------|-----------------------------|----------------------------------|
| Conformal Coatings | | | | | | | | |
| 9-20557 | • | • | | Flexible; blue fluorescing; excellent thermal shock performance; approvals: MIL-I-46058C, IPC-CC-830-B, UL 746, UL 94 | 2.300 | D60 | 15,8 [2.300] | 379 [5.500] |
| 9483 | • | | • | Excellent chemical and thermal shock resistance; good adhesion to PCB; flame retardant; bright blue fluorescing; great temperature/humidity performance; approvals: MIL-I-46058C, IPC-CC-830-B, UL 746E, UL 94V-0 | 750 | D60 | 16,2 [2.350] | 276 [40.000] |
| Edgebond & Potting Adhesives | | | | | | | | |
| 9-911-REV-B | • | • | | One-part potting material; high viscosity; solvent resistant; high bond strength to circuit board components; blue fluorescing | 25.000 | D80 | 24 [3.500] | 552 [80.000] |
| 921 | •* | • | | One-part; low viscosity; ideal for potting applications with phenolic or filled plastics, glass, and meta; high tensile strength | 750 | D75 | 35,9 [5.200] | 2.206 [320.000] |
| 9309-SC | • | | | Highly thixotropic reinforcement adhesive; See-Cure color-change technology; reduces stress on components; adheres to a variety of PCB substrates | 45.000 | D57 | 22 [3.200] | 163 [23.800] |
| Encapsulants | | | | | | | | |
| 9014 | •* | | • | Flexible; blue fluorescing; room-temperature stable | 18.000 | A70 | 8,2 [1.200] | 119 [17.300] |
| 9037-F | • | • | | Flexible; good moisture and thermal resistance; blue fluorescing | 55.000 | D40 | 5,8 [850] | 6,2 [900] |
| 9-20558-REV-A | • | • | | High viscosity; thixotropic for minimal movement after dispense; flexible; bonds well to FPCs | 20.000 | D50 | 6,2 [900] | 2,3 [340] |
| 9001-E-V3.1 | • | • | | Moisture and thermal cycle resistance; good ionic and electrical properties | 4.500 | D45 | 5,2 [750] | 172 [2.500] |
| Maskants | | | | | | | | |
| 9-20479-B-REV-A | • | | | Blue; peelable; compatible with gold and copper connector pins; silicone, solvent, and halogen free | 115.000 | A75 | 3,37 [490] | 4,13 [600] |
| 9-7001 | • | | | Pink; peelable; compatible with gold and copper connector pins; resistance to solvent-based conformal coatings and primers; silicone, solvent, and halogen free | 40.000 | A70 | 3,8 [560] | 1,9 [275] |

*UV only



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