

COATING ADHESION TO PCB AND COMPONENT MATERIALS:

To provide effective protection to PCB components and surfaces, conformal coatings must wet well upon application and adhere well after cure. Optimal results are obtained with clean boards.

CURED COATING PROPERTIES AND SPECIFICATIONS:

Dymax conformal coatings are excellent insulators. In practice, properties affecting the degree of protection include coating thickness (thicker is typically better), moisture absorption (less is better), and resistance to other environmental stresses. Flexible grades are designed to enhance thermal cycling performance. Hard, more rigid grades are preferred to enhance chemical resistance in harsh environments. Required specifications are also important considerations. Dymax conformal coatings are used in a multitude of military and automotive applications. Dymax carries an array of MIL-I-46058C listed, IPC-CC-830-B approved and UL recognized coatings.



CONFORMAL COATINGS

RELIABLE BOARD PROTECTION IN SECONDS

Product Number*	Description	Viscosity (cP)	Durometer Hardness	Modulus of Elasticity (psi)	Dielectric Strength (Volts/mil) ¹	Approvals
9481-E	Secondary moisture cure for shadowed areas; low viscosity for thin coatings; low surface energy for difficult-to-wet components and assembly materials; high chemical and abrasion resistance	125	D75	21,800	>1500	MIL-I-46058 listed IPC-CC-830 approved UL recognized
9482	Secondary moisture cure for shadowed areas; superior re-workability; thermal shock and chemical resistance; blue fluorescing	1,100	D70	40,000	1,100	-
984-LVUF	Secondary heat cure; Isocyanate free; low viscosity for thin coatings; rigid for high chemical and abrasion resistance	150	D80	60,000	1,800	MIL-I-46058 listed IPC-CC-830 approved UL recognized
987	Secondary heat cure; Isocyanate free; low viscosity for thin coatings; rigid for high chemical and abrasion resistance; low surface energy for difficult-to-wet components and assembly materials	150	D85	130,000	>1,500	MIL-I-46058 listed IPC-CC-830 approved
9-20351-UR	Secondary heat cure; Isocyanate free; high viscosity for easy one-pass coverage of high-profile leads and tall components; low modulus for superior thermal cycling performance; red fluorescing	13,500	D60	2,700	500	-
9-20557	Secondary heat cure for shadowed areas; Isocyanate free; medium viscosity for wetting components; low modulus for enhanced thermal cycling performance	2,300	D60	13,000	>1,500	MIL-I-46058C listed IPC-CC-830 approved UL recognized
9-20557-LV	Secondary heat cure for shadowed areas; Isocyanate free; low viscosity for thin coatings; low modulus for enhanced thermal cycling performance	850	D70	55,000	>1,500	MIL-I-46058C listed IPC-CC-830 approved

*NOTE: Other grades are available for specific applications requiring physical properties that are different from the standard products listed here.

¹ 1-mil = 0.001 in = 0.0254 mm