

REWORK AND REMOVAL OF UV CONFORMAL COATINGS

INTRODUCTION

DYMAX Conformal Coatings are solvent-free, UV curing resins that are applied as thin coating layers on electronic devices for protection against environmental, mechanical, electrical, and chemical exposure.

Conformal coatings were originally developed for military, aerospace, and marine applications. They are increasingly being used in a broader base of telecommunication, computer, automotive, consumer, industrial, and control applications to increase product quality and performance reliability. Conformal coatings also protect the manufacturer's investment in delicate, expensive, high-density components.

CONFORMAL COATING REWORK PROCESS

The requirements for an effective rework process must balance the end use performance properties of the coating with its individual ease of removal. In general, solvent-based, non cross-linked coatings will be relatively easy to remove with solvents. DYMAX offers a line of UV conformal coatings that allows users to choose from a wide range of product properties to meet their individual requirements. (Reference Lit204 DYMAX Conformal Coating Selector Guide.)

UV cured and cross-linked systems, with their enhanced environmental and chemical resistance, will be more challenging to remove. The three most common techniques used to remove cured, cross-linked conformal coatings are chemical, thermal, and mechanical removal.

MECHANICAL REMOVAL

Comco, Inc.	800-796-6626
2151 N. Lincoln Street	818-841-5500
Burbank, CA 91504-3344	www.comcoinc.com

Comco manufactures a Micro-Blaster System that safely removes cured coating with a pressurized abrasive. The abrasive is easily removed from the surfaces without danger to the components.

HEAT REMOVAL

Depending upon the size of the area to be reworked and the temperature sensitivity of the components involved, cured conformal coating can be removed by heat in two ways:

- *Heat the entire board to 150 °C, which softens the conformal coating. Then strip the coating while still hot.*
- *Use a HADT (Hot Air Desoldering Tool) or a solder gun to spot coating in localized areas. Apply the heat source to the localized area and remove coating as it softens. Exercise care not to damage heat sensitive components. This method is useful when the surrounding area contains heat sensitive components since it directs the hot air to one spot.*

CHEMICAL REMOVAL

Removing cured conformal coatings by chemical treatment requires immersion of the coated board or treating localized areas with the chemical stripping solution. Several companies manufacture materials which dissolve/attack conformal coatings. On the back of this bulletin is a list of materials that have been shown to be effective in the removal of DYMAX conformal coatings.

COMPANY	PRODUCT	TELEPHONE NUMBER
Savogran Corporation 259 Lenox Street Norwood, MA 02062 www.savogran.com <i>Products are sold through local, paint, hardware and home centers.</i>	Kutzit or Strypeeze	800-225-9872
Dynaloy, Inc 1535 E. Naomi Street Indianapolis, IN 46203 www.dynaloy.com <i>Products are sold through authorized distributors.</i>	Dynasolve Uresolve Plus SG	800-669-5709 317-788-5694
Tech-Spray 1001 N.W. 1 st Avenue P.O. Box 949 Amarillo, TX 79105 (for P.O. box) 79107 (for street address) www.techspray.com <i>Products are sold through authorized distributors.</i>	Fine-L-Kote Remover 2510	800-858-4043
Jasco, Inc 1008 N. Fuller Street Santa Ana, CA 92701 www.jasco-help.com <i>Products are sold through local paint, hardware, home centers and distribution.</i>	Jasco Premium Paint and Epoxy Remover	888-345-2726

Before using any of these products, it is important to consult with your company's health and safety department. There is no guarantee these products will work for your application and should be thoroughly evaluated. Please consult the appropriate product and material safety data sheets prior to use.

TECHNICAL ASSISTANCE

DYMAX Technical Service is available to assist customers in evaluating individual rework methods. Please contact us for assistance with your specific rework process.

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