

## **Global Quality Through Indigenous Technology**

ISO-9001-2015 / ISO-14001-2015 / MIL-STD-46058-C / REACH COMPLIANCE / ROHS COMPLIANCE G1, G2 & G3 COMPLIANCE / C-DOT APPROVAL

LCLEAN

# Connectivity is force that leads to commitment

# CONFORMAL COATINGS FOR PCB ASSEMBLIES

PROTECTS PCB ASSEMBLIES FROM CORROSION, CONDUCTIVE DUST, MOISTURE, OXIDATION AND HIGH HUMIDITY.



### CONINS ACRYLCOAT - ACRYLIC BASE CONFORMAL COATING FOR PCB ASSEBLIES

#### • AR-30 is an Aerosol (spray can).

•ALQ-30/ALQ-60/ALQ-100/SKR-70 is a range of Lacquer products with different viscosities.

#### Conins Acrylcoat AR-30/ALQ-60/ALQ-100/SKR-70

is a range of high quality, flexible, transparent and eco-friendly acrylic conformal coatings for PCB assemblies, which are inevitable and Delicate Components in electronics and electrical. PCB assemblies can be damaged in harsh environmental conditions and result in failure of the electronics to function. Conins Acrylcoat provides the right protection for the PCB assemblies.

#### Salient Features

- 100% eco-friendly
- Easy to apply, fast drying, fast curing
- Provides excellent adhesion to all surfaces
- Easily solder-able; thus components can be easily serviced.
- REACH Compliance

- Good dielectric strength; hence provides protection against high voltage and corona shorts.
- Contains UV tracer for easy inspection
- Rohs Compliances
- Easily removable with Conins Elclean Solvent.



## **Application Methods:**

This method is widely used for applying conformal coating to PCB assemblies.

#### It is suitable only for our product, Conins Acrylcoat AR-30 • Easy to use a Aerosol

- 1. Hold the aerosol can in a slightly tilted position, at about 3 to 6 inches from the PCB assembly.
- 2. Push the spray button on the can gently, to spray the aerosol.
- 3. Move your hand evenly and quickly, across the width or length of the PCB assembly, to spray single coat of aerosol.
- Leave the component to dry in a well-ventilated area. Important: Perform the spray coating under an exhaust hood or near open window. This pulls out fumes and fine mist from the aerosol.

### Dispensing Pump METHOD

Spraving

METHOD



## This method can be used when the quantity of PCB assemblies are more.

Application can be done with the help of compressed air with 0.5 kg or 1 kg air pressure. Spraying can be done with help of a spray gun with adjustable spraying angles. By using this method, you can apply conformal coating of upto ALQ-100 viscosity to the component as per its needs.

#### Features of the Dispensing Pump method

- 1. Dispensing pump tank is available in 5 liters and 10 liters capacity.
- 2. Dispensing pump is available with easy to use Spray Gun.
- 3. Minimum wastage, More coverage area.
- 4. For spraying, no gas required. Spraying is done only using air. Hence, it is safe to apply.
- Eco-friendly method as empty spray bottles need not be thrown away as waste.
   It is useful for bulk application.



## This method is the easiest & most economical method for applying the conformal coatings.

#### It is Suitable only for our Product, Conins Make Acrylcoat ALQ-30. ALQ-60, ALQ-100 & SKR-70

It is better suited for batch production & service applications. Brushing method ensures uniform application of coating and the thickness depends upon the application. Our products can be provided in cans.

- 1. Dip the application brush in the can.
- 2. Take ample quantity of acrylocat in brush
- 3. Apply the conformal coating evenly on the PCB assembly and component.
- 4. Leave the component to dry in a well-ventilated area.

This method is most suitable for small production or assembly units or shops.

It is Suitable only for our Product, Conins Make Acrylcoat ALQ-30. ALQ-60, ALQ-100 & SKR-70

- 1. Dip the PCBA component in the dip tank containing conformal coating.
- 2. Withdraw the component slowly at a uniform rate.
- 3. Leave the component to dry in a well-ventilated area.

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## G1, G2, & G3 COMPLIANCE

"Conins Acrylcoat SKR-70 and ALQ-100 Certified G1, G2, G3 Compliant for Chemical Fume Resistance as per ISA-571-04-1985 and IEC-60068-2-60-2015 Standards"

CONINS Acrylcoat SKR-70 is thickest conformal coating of its kind transparent but yet very thick coating on any electronic circuits. Acrylcoat SKR-70 having very strong bonding on the surface and after drying the coating thickness is 200 + microns.

#### Advantage SKR-70

- Provides excellent protection against corrosion and rust in highly humid, salty environments, and in the
  presence of gaseous fumes.
   Resists vibration and shaking, ensuring the coating remains intact on the PCBA.
- Coating thickness exceeds 200 microns for SKR-70.
- Film is traceable under a UV lamp. Easily removable using "Elclean" solvent.

#### Applications

 Where very high humid or dew or water drops
 Withstands 5 to 10% of industrial gases are in exist (G1/G2/G3 Conditions)
 PCBA & LED outdoor lighting where artificial water drops / fountains
 Defense applications
 Automobile application
 Electrical bus bars & switch gear insulation

#### How to apply

By brush or by dipping method. Drying Time 15 to 25 min. touch to dry. (Air drying) for fast drying pre heat & post heat at 50 Deg. C for 5-10 min. Shelf life 3-4 months from the date of mfg. in air tight condition. Always keep in cool place.

## LED LIGHTING - CONFORMAL COATING ACRYLCOAT LED-LGT-SPL-60

In today's changing world, LED lights are used in Offices, Corridors, Street Lights, Parking Zones Industries and Even Decorative Home Lighting. These Lights are Continuously Exposed to changing atmospheric conditions and need to be protected for Efficient and Long Term use. Conins Acrylcoat LED-LGT-SPL-60 is the perfect solution.

#### **Salient Features**

- Protects LED lighting from high humidity, salty weather, conductive dust, oxidation, corrosion, rusting and fungus etc.
- Provides transparent hard film coating on the surface of LED lights and circuits.
- Improves the functioning of LED lights without many failures.
- Works as a heat sink paint or coating, and saves extra workmanship and cost.
- Does not affect the luminosity of LED lights.
- Works best in operating temperatures ranging from -50° C to +150° C.
- Minimizes service calls and repairs; hence reduces service/repair overheads for the end users and manufacturers.

#### Applications

Brushing, Dipping or Dispensing pump method.





### **EV- ELECTRIC VEHICLE & AUTOMOBILE CONFORMAL COATING**

"Conins manufactures ACRYLCOAT SKR-70 and ALQ-100, advanced conformal coatings widely used in EV, automotive, and BMS applications to protect PCBs from harsh environmental conditions. These coatings are particularly well-suited for the automotive industry, offering exceptional durability and reliability. As specialists in conformal coatings for EV-PCBAs, Conins proudly supplies these products to leading OEMs across India."

#### Applications

- Motor controller EV DC convertor SMPS battery chargers Electronic battery discharge equipment.
- Li-ion/lfp chargers Lead acid chargers E-bike charger E-rikshaw charger Electric cycle
- Electric cars & buses Electric bikes Electric tricycles & Electric Golf carts BMS Application

## CONINS POLYCOAT



## POLYURETHANE CONFORMAL COATING CONINS MAKE POLYCOAT CPU-40

CPU-40 is an air-drying polyurethane conformal coating, pre-mixed for easy application on PCBAs. It forms a protective layer that cures through solvent evaporation, offering excellent toughness, abrasion resistance, and protection from moisture and environmental elements.

#### **Key Characteristics**

- Moisture Protection: Superior barrier against humidity and corrosion.
- Electrical Insulation: High dielectric strength, preventing electrical shorts.
- Thermal Stability: Withstands extreme temperatures without compromising protection.
- Flexibility: Maintains adhesion through thermal expansion and contraction.
- UV Resistant: Protects against UV degradation over time.

#### Benefits

- Ready to Use: No mixing required.
- Efficient Coverage: Provides economical, thick coating with minimal product usage.
- Conins Polycoat is removable with our solvent.

#### **Chart of Properties:**

	UR		UR	rst
Dielectric Strength	A	Abrasion Resistance	А	IOM
Surface Resistivity	A \	Humidity Resistance	В	<u>s</u>
Thermal Resistance	В	Ease of Application	С	Дþ
Thermal Conductivity	A	Ease of Removal	В	and
Resistance to Chemicals	Α	Pot Life	С	best
Solvent Resistance	А	Curing Time	В	is b
		-		-

CONINS

### **ELCLEAN**

#### PCBA CLEANING AGENT AND ACRYLIC BASE CONFORMAL COATING REMOVER.

ELCLEAN is a high-performance PCBA cleaning solution, specially designed to remove flux residues and contaminants from sensitive electronics without harming components. It also effectively removes tough acrylic-based films on PCBAs.

#### **Key Features:**

- · Residue-Free: Leaves no residue, ensuring optimal functionality.
- · Whitening-Free: No whitening effect on PCBAs after cleaning.
- · Low Evaporation: Minimizes wastage and extends working time.
- · Lab-Grade Purity: Suitable for precision environments like labs and production lines.
- Eco-Friendly: RoHS compliant and made with environmentally safe ingredients.
- · Component-Safe: Non-corrosive and non-conductive for sensitive electronics.
- · Fast Drying: Speeds up processes, reducing downtime.

#### **Benefits:**

- Improved Performance: Enhances reliability by eliminating contaminants.
- Versatile Application: Available in sprays and liquid forms.
- Cost-Effective: Low evaporation reduces overall usage.
- Safe Handling: Non-toxic, free from harmful VOCs, and safe for operators.

#### **Usage Instructions & Applications:**

- Spray or Apply: Spray directly onto the PCB surface or apply using a lint-free cloth or soft brush for thorough cleaning.
- Dipping with Brushing: Immerse the PCB in the solution, then gently wipe with cotton, a brush, or a clean cloth to remove contaminants.
- · Conformal Coating Removal: ELCLEAN effectively removes acrylic and Conins make polyurethane conformal coatings.

TECHNICAL DATA	AR-30	ALQ-30	ALQ-60	ALQ-100	LED-LGT-SPL-60	SKR-70
Appearance (Liquid & Coated Dry Film)	Clear, Transparent	Clear, Transparent	Clear, Transparent	Clear, Transparent	Clear, Transparent	Clear, Transparent
Specific Gravity (Density @25 Deg)	0.914	0.914	0.910	0.900	0.910	890
Viscosity (@25 Deg)	30 Sec Zahn Cup	30 Sec Zahn Cup	60 Sec Zahn Cup	100 Sec Zahn Cup	60 Sec Zahn Cup	200+ Sec Zahn Cup
Flash Point	<40	<40	<40	<40	<40	<40
CTI Value	600	600	600	600	600	600
Coating Thickness (Single Coat)	15-20 Micron	15-20 Micron	30-35 Micron	45-50 Micron	30-35 Micron	200-250 Micron
Diaelectric Strength	15 KV/MM	15 KV/MM	15 KV/MM	15 KV/MM	15 KV/MM	15 KV/MM
Thermal Cycling	AS PER MIL Std.	AS PER MIL Std.	AS PER MIL Std.	AS PER MIL Std.	AS PER MIL Std.	AS PER MIL Std.
Moisture Resistance	1.5 x 10 <sup>12</sup> Ohms	1.5 x 10 <sup>12</sup> Ohms	1.5 x 10 <sup>12</sup> Ohms	1.5 x 10 <sup>12</sup> Ohms	1.5 x 10 <sup>12</sup> Ohms	1.5 x 10 <sup>12</sup> Ohms
Insulation Resistance	3.5 x 10 <sup>12</sup> Ohms	3.5 x 10 <sup>12</sup> Ohms	3.5 x 10 <sup>12</sup> Ohms	3.5 x 10 <sup>12</sup> Ohms	3.5 x 10 <sup>12</sup> Ohms	3.5 x 10 <sup>12</sup> Ohms
Fungus Resistance	AS PER MIL Std.	AS PER MIL Std.	AS PER MIL Std.	AS PER MIL Std.	AS PER MIL Std.	AS PER MIL Std.
Withstand Temperature (Film)	-50° To +150° (Deg C)	-50° To +150° (Deg C)	-50° To +150° (Deg C)	-50° To +150° (Deg C)	-50° To +150° (Deg C)	-50° To +150° (Deg C)
Coverage Area (20 micron Film)	2m²	6-7 m² (Appx)	5-6 m² (Appx)	4-5 m² (Appx)	5-6 m² (Appx)	3-4 m² (Appx)
Film Traceble	Under UV Lamp	Under UV Lamp	Under UV Lamp	Under UV Lamp	Under UV Lamp	Under UV Lamp
Drying Time (Touch to Dry)	5-7 Min.	5-7 Min.	8-10 min.	10-15 Min.	8-10 Min.	20-25 Min.
Hard Dry	2 Hours	2 Hours	2 Hours	2 Hours	2 Hours	5 Hours
Pre and Post Heating for (Touch to Dry)	1-3 Min.	1-3 Min.	1-3 Min.	3-5 Min.	1-3 Min.	10 Min.
PCB Coating @50 Deg C Hard Dry	10 Min.	10 Min.	10 Min.	15 Min.	15 Min.	20 Min.
Curing Time	24 Hours	24 Hours	24 Hours	24 Hours	24 Hours	24 Hours
Optimum Properties	7 Days	7 Days	7 Days	7 Days	7 Days	7 Days
Water Vapour Dans. Rate ASTM-E-96g/h-m2	0-310	0-310	0-310	0-310	0-310	0-310
Shore Hardness ISO-868-durameter	58	58	58	58	58	58
Elongation ISO-527-3 N/mm2Cpsi	5-9 (847)	5-9 (847)	5-9 (847)	5-9 (847)	5-9 (847)	5-9 (847)
Tensile Mudules ISO-527-3 N/mm2Cpsi	575 (82000)	575 (82000)	575 (82000)	575 (82000)	575 (82000)	575 (82000)
Volume Resistivity IEC-60093 Ω	7.00 x 10 <sup>A15</sup>	7.00 x 10 <sup>^15</sup>	7.00 x 10 <sup>^15</sup>	7.00 x 10 <sup>A15</sup>	7.00 x 10 <sup>^15</sup>	7.00 x 10 <sup>^15</sup>
Surface Resistivity IEC-60093 Ω	1.63 X 10 <sup>A<sup>17</sup></sup>	1.63 X 10^ <sup>17</sup>	1.63 X 10 <sup>^17</sup>	1.63 X 10 <sup>A<sup>17</sup></sup>	1.63 X 10 <sup>A<sup>17</sup></sup>	1.63 X 10 <sup>^17</sup>
Flame Test As per UL94-V-1	Pass	Pass	Pass	Pass	Pass	Pass
Packing	500 ml Aerosol	1,5,25 Litre.	1,5,25 Litre.	1,5,25 Litre.	1,5,25 Litre.	1.5.25 Litre.

### **CONFORMAL COATING SERVICES FOR PCBA PROTECTION**

Conins Pune now offers PCBA coating services for our Acrylcoat at our Pune facility with on site services available for larger quantities both in India and Abroad.

#### Why Choose Us?

- Customized Solutions: Offering a range of coatings, including acrylic and polyurethane, tailored to your product's needs.
- **Precision Application:** Advanced techniques ensure even coverage, protecting components without Altering their properties.
- · Cost-Effective: Efficient processes reduce waste and costs without compromising quality.

Our process includes surface preparation, precise masking, and uniform coating application, curing, and rigorous inspection to ensure the highest quality standards.

### **ABOUT CONINS PUNE**

Conins Pune is a leading indigenous manufacturer of conformal coatings, with over 22 years of expertise in the industry. We take pride in delivering eco-friendly, RoHS, and REACH-compliant products that meet global standards.

- Innovative Solutions: We introduced single-component conformal coatings to the Indian market, providing a cutting-edge product range for global competitiveness.
- Advanced Infrastructure: Our state-of-the-art facilities include a well-equipped manufacturing unit, testing lab, and dedicated R&D center to drive continuous innovation.
- **Customer Commitment:** We proudly serve both national and international clients, offering prompt delivery and expert technical support to ensure the proper selection of coatings and application methods for every need.
- Sustainability: Our products are eco-conscious and aligned with the latest environmental regulations.

At Conins Pune, we are dedicated to advancing the industry with innovative products and superior customer service.

#### Conins products can be applied on

- PCB assemblies; solder side and mounting side 
   UPS systems
   Energy meters
- LED lighting, scrolling displays
   Electronic home appliances
   Air conditioning
- Automobile Electronics, Electrical vehicles 
   Computers
   Electronic products
- Welding machines/Hand drilling electronics
   Marine/Defence electronics

We Export Globally.



#### ACRYLCOAT CONFORMAL COATINGS

Sectional Continuation Continuation Section 2018 Section



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