URETHAN 71

The conformal coating for electro-engineering and electronics.

1. GENERAL DESCRIPTION

Air drying one-component polyurethane-alkyd resin coating.

2. FEATURES

URETHAN 71 is a transparent protective coating for printed circuit board, having excellent insulating properties. The coating has an outstanding adhesion performance in the temperature range from -40°C to +120°C. Due to the chemical cross linking reactions happening after the drying stage, URETHAN 71 based coatings can also be used in humid or aggressive environments.

3. APPLICATIONS

- Offers a long-lasting protection on printed circuit boards and on coils in electric motors
- Anti-moisture sealant in corrosive atmospheres for all types of metals
- Used on: Armature coils, casings, cables and wiring, connectors, control systems, electronic components, solenoids, machine tools, transformer clamps and casings.
- Because of its aesthetics and good adhesion on many materials, URETHAN 71 can also be used to provide decorative and transparent protection for every day metal articles. The slightly yellow coloration enhances the aesthetics of non-ferro metal surfaces

4. DIRECTIONS

For small runs and service applications, the easiest way to use URETHAN 71 is from an aerosol can. Spray the product from a distance of 20-30 cm on a dry, and degreased surface. We do recommend Kontakt PCC to remove greasy layers, dirt and flux remains from PCB's. After usage, purge the valve by spraying the can in an up-side-down position until only propellant escapes.

For serial production runs, bulk URETHAN 71 can be applied by brush, by dipping or by spraying. If the mixture, as supplied, is too viscous for existing spraying equipment, a little "Thinner for Urethan 71" (acetone) can be added. The exact mixing ratio must be determined by trial.

**ISO
9001:2015**

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The product must be properly sealed when being stored. Because URETHAN 71 is susceptible to cross-linking during drying, a coating once thickened can not be made useable again by dilution.

At ambient temperature, almost all solvents will be evaporated after 120 minutes. At this stage the coating is sufficiently dry to allow further assemblies to be handled for mounting. The chemical cross linking reactions take several days under ambient conditions. However 90% cross-linking can be achieved after 24 hrs storage at 60ºC.

URETHAN 71 contains flammable solvents and hence all ignition sources should be removed. Make sure there is good ventilation in the work place.

Further information on safety can be obtained from the Safety Data Sheet.

5. TYPICAL PRODUCT DATA

Aerosols

Flash point :	<0ºC
Coverage 20µm dry film (calculated) :	approx. 0,5m²/100 ml

Bulk

Viscosity :	<30mPas
Flashpoint :	<0ºC
Density at 20ºC :	0,80-0,84
Coverage 20µm dry film (calculated) :	approx. 10 m²/l
Dry to touch at 20ºC :	approx 120 min

Cured film properties (24 hrs at 20ºC + 24 hrs at 60ºC, thickness 20-40 µm)

Appearances :	yellowish-transparent
Dielectric Strength at 20ºC :	>40 kV/mm
Surface resistivity :	>10^{12} Ω
Volume resistivity :	>10^{12} Ω.cm

Adhesion on copper plates, measured at ambient temperature
Following 6 hrs at -40ºC : Gt 0-1
Following 6 hrs at +120ºC : Gt 0-1

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6. PACKAGING

Aerosol   :   200 ml
                   400 ml
Canister :   1L

All statements in this publication are based on service experience and/or laboratory testing. Because of the wide variety of equipment and conditions and the unpredictable human factors involved, we recommend that our products be tested on-the-job prior to use. All information is given in good faith but without warranty neither expressed nor implied.
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Version :   4.1
Date: 6 November 2021