



Becoat 921L Conformal Coating

The Solutions that Create Value!

For sealing and bonding

Type
one-part, moisture-cure,
none-Solvent type; low
viscosity

Physical Form
cure to flexible elastomers
as film

Special Properties
Room-temperature; resist
humidity and other harsh
environments;
Easily removable;
good dielectric properties;
self-priming adhesion;
prevent PCB board suffering
humid and corrosive

Potential Uses
Household control module;
Impregnated transformers;
Inductive protection;
Tough and flexible PCB
coating;
LED lights' surface coating;

FEATURES

- Becoat 921L is a one-component, none-solvent type conformal coating ,based on silicone. It cures on exposure by moisture to form an elastic silicone rubber film.
- Becoat 921L has excellent corrosion-free adhesion to metals, including copper, plastics, ceramics, glass, etc, without the use of primers.
- Excellent high and low temperature resistance: from -60°C to 250°C .
- Stably under working temperature 200°C for long term
- Excellent weather ability, water and chemical resistance
- Excellent electrical insulation properties.
- Simple and easy-to-use one-component system.

TYPICAL PROPERTIES

■ TYPICAL UNCURED PROPERTIES	
	BECOAT 921L
Viscosity, mPa.s	900
Appearance	Clear
Solide content	100%
Specific Gravity (g/cm ³) , GB/T 15223-1994	1.00±0.02
25°C Tack-free Time(min), GB/T13477-2002	10-20 mins or 3-5 mins (at 60°C)
■ TYPICAL CURED PROPERTIES (7 DAYS @ 25°C/55%RH)	
Hardness, Shore A, GB/T 531-2008	20
Tensile strength (Mpa), GB/T 528-2009	0.4
Elongation(%), GB/T 528-2009	200
Adhesive strength (Mpa), GB/T 7124-2008	0.25
■ ELECTRICAL PROPERTIES (CURED)	
Dielectric strength (kv/mm), GB/T 1695-2005	25
Dielectric constant (@1MHz), GB/T 1693-2007	2.9
Dielectric loss (@1MHz), GB/T 1693-2007	0.009
Volume resistivity ($\Omega \cdot \text{cm}$), GB/T 1692-92	1×10^{14}
Thermal conductivity [W/(m·K)], GB/T 10297-1998	0.22

The Physical property above was test after cured 7days.

Shear test of base material is iron tablets.

USE

- Clean the surface thoroughly, keep dry and loose debris. Clean with a solvent.
- Spraying with a dispenser. Thinner dosage recommendations for 30~50%. Diluent recommends the use of Heptane \toluene and petroleum ether, do not use solvent such as alcohols, ketones.
- Dip-coating process. dip the PCB into the glue, and stay for about 10seconds to avoid bubbles.



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How to apply

Apply a bead of Becoat 921L Adhesive/Sealant (see Handling Precautions) to one of the prepared surfaces.

On exposure to moisture, the freshly applied material will "skin-over" in about 20-30 minutes at room temperature and 50% relative humidity. Any tooling should be completed before this skin forms. The surface is easily tooled with a spatula. The adhesive/sealant will be tack-free in approximately 30 minutes.

Cure time

In 24 hours (at room temperature and 50% relative humidity) Becoat 921L Adhesive/Sealant will cure to a depth of about 3-4mm. If deeper sections, especially when access to atmospheric moisture is restricted, will take longer to cure completely.

Cure time is extended at lower humidity levels. Before handling and packaging bonded components, users are advised to wait a sufficiently long time to ensure that the integrity of the adhesive seal is not affected. This will depend on many factors and should be determined by the user for each specific application.

To reach stable property, it's better to rise the temperature step by step, for example, after cured 7 days, heat the sealant on 150°C for 5 hours, then 200°C for 4hours, 230°C for 4hours, 250°C for 3 hours ,and 280°C for 2hours.

HANDLING PRECAUTIONS

When using solvents avoid contact with skin and eyes, heat, sparks and open flames. Always provide adequate ventilation. Obtain and follow handling precautions from the solvent supplier.

Product safety information required for safe use is not included. Before handling, read product and safety datasheets and container labels for safe use, physical and health hazard information. You can obtain a copy from your local sales representative or Distributor.

USABLE LIFE AND STORAGE

When stored at or below 30°C (86°F) in the original unopened containers, this product has a usable life of 12 months from the date of production.

PURCHASE CODE

√、Becoat 921L conformal coating, code: 0006010

i. 1L/can

LIMITATIONS

Adhesion may be less successful on low-energy plastics such as Polyethylene, Polypropylene and PTFE. Users should do preliminary tests in each specific application to ensure satisfactory results.