

TECHNICAL DATA SHEET



UVP100

JUNE 2013

Permanent urethane conformal coating, low COV

PRODUCT DESCRIPTION

UVP100 is a transparent urethane conformal coating developed especially to protect Pcb's in harsh environment.

UVP100 have a dual cure system, heat and moisture.

This conformal coating was developed especially for dipping application in view to reduce VOC usage.

PROPERTIES

- High adhesion in harsh climatic environment.
- Low VOC
- UV tracer included.
- Fungus resistance.
- Excellent dielectric properties.

APPLICATION

UVP100 can be apply in dipping or brush.

A minimum temperature of 16 ° C and a relative humidity of at least 6% is recommended for the application of UVP100. The relative humidity of at least 60% is recommended for the second polymerization mechanism.

Before applying the printed circuit board must be clean, dry and free of moisture. Pcb's are humidity sensor, it is important to remove it before coating application. A stage in an oven for 4 hours at 80 ° C is usually sufficient.

The varnish UVP100 contains a fluorescent tracer which permit to check good varnish deposit, inspection circuits is facilitated. Fluorescence is more important the thickness applied is high.

PREPARATION OF THE PCB

PCBs must be free of moisture and perfectly clean (no dust, grease, wax... Adhesion of the coatings is depending. All traces of flux are eliminated because they can become corrosive and create malfunction of the circuit.

We recommend using cleaning solvent or detergents SND or CIPEX 40 or 42.

CONFORMAL COATING PROCESS

1) Spraying

- For optimal coverage spray must be crossed layers in order to cover all faces of the components.
- The air used must be dry to avoid premature polymerization of the coating.

2) Brushing:

- Apply the varnish with a good quality brush (silk).

3) Dipping

- Inert the bath with Nitrogen permit to avoid an evolution of the viscosity.

The board assemblies should be immersed in the UVP100 dipping tank in the vertical position, or at an angle as close to the vertical as possible. Connectors should not be immersed in the liquid unless they are very carefully masked.

ABchimie Peelable Coating Mask (LDM) is ideal for this application.

Leave submerged for about 1 minute until the air bubbles have dispersed. The board or boards should then be withdrawn VERY SLOWLY (5 to 20 cm/mn) so that an even film covers the surface. After withdrawing, the boards should be left to drain over the tank until the majority of residual coating has left the surface.

After the draining operation is complete, the boards will going the curing process:

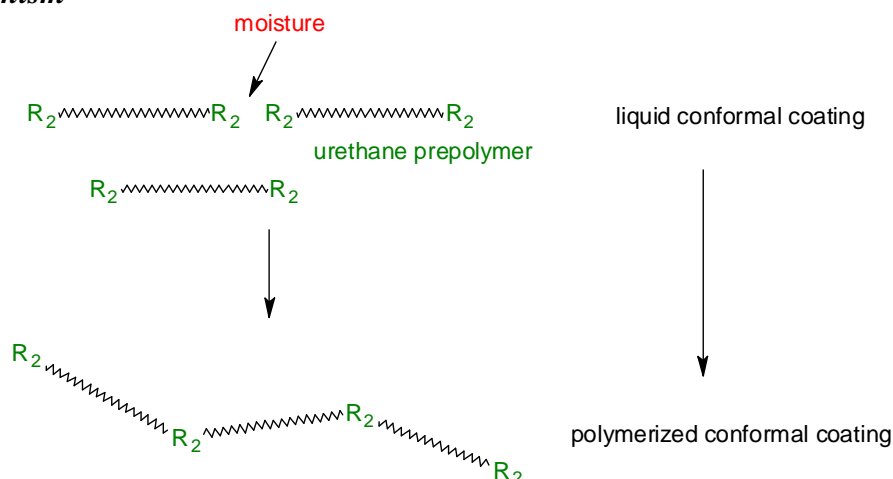
Ambient temperature	5-6 hours
Heat and moisture (80°C)	20-30mn

CLEANING

To clean equipment or clean uncured varnish UVP100, we recommend to use SND solvent.

DRYING TIME AND CONDITIONS OF CURE

Cure mecanism



UVP100 is dry touch after 20 minutes at 80°C in moisture ambiance (mini 60%RH)

PROPERTIES

UVP100 liquid

Base	Urethane
Appearance	Slightly yellow
non-volatile residue	>95%
Viscosity at 25 ° C	60-100 cSt
Flash point	> 135°C (close coupelle)
Dry time	80°C/20mn moisture ambiance 23°C / 60% RH minimum : 24h

UVP100 cured

Appearance	Transparent
Adhesion ISO 2409	Class 0 (excellent)
Volume resistivity	1 x 10 ¹⁴ Ohm / cm
Insulation resistance (Ω)	1012 (EN 61086)
VRT	- 55°C+125°C, 10°C / min, landing 25 minutes, 20 cycles
VRT	- 25°C+25°C, 5°C / min, 15 min level, 100 cycles
Voltage	> 1750V DC (NF EN 61086)
Temperature range from	- 55 ° C to + 150 ° C
Varnish removal method	Mechanical (micro-abrasion)

PACKAGING

UVP100

Bulk 5 litres

REFERENCES

UVP100 05 L

All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification. ABchimie cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.

Toutes ces informations sont données en toute bonne foi mais sans garantie. Chaque application étant différente, il est vivement conseillé d'effectuer des tests préalables. Les spécifications concernant les propriétés sont données à titre indicatif et non comme étant spécifiques.
ABchimie- 04 74 83 12 19