

## ABchimie4002UV ABchimie4002UV LED

Sept 2025

UV curable resin, adhesion on plastic substrates

ABchimie4002UV and ABchimie4002UV LED are UV curable transparent resins which bring protection on PCBAs or plastic substrates in harsh environment, with thin thickness (until 1mm). It also can be applied to bring robustness to your systems. Its curing is immediate with UV or LED radiation.

### FEATURES

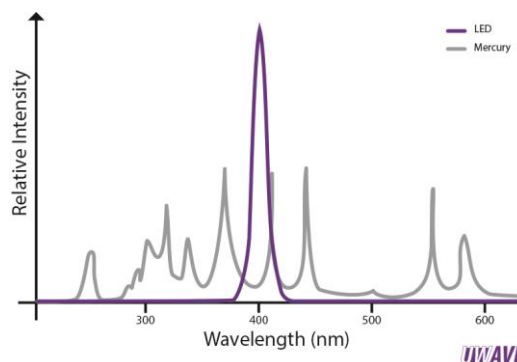
- Excellent adhesion in harsh environment
- Very fast curing under UV LED exposure.
- None VOC content
- Space floor gain compare solvent product
- High speed process, high productivity
- Without silicon

### CURING CONDITIONS

For best results, ABchimie4002UV LED resin **should be mixed before application** (to have an homogeneous liquid). It can then be debubbled using a vacuum chamber, or you can wait a few hours for the product to be debubbled and ready for application.

It is important to use the appropriate UV equipment (UV or LED) as well as the recommended settings for the best properties of cured conformal coating. These parameters have some effects on the reactivity and the surface of coating.

The following graph shows the wavelength range emitted by the LED lamp, different from the spectrum of a mercury lamp.



## 1- ABchimie4002UV LED - LED curing

Recommended settings for the best properties of the resin ABchimie4002UV LED:

### LED lamp 395 nm

Minimum UVA2 dose : **3000mJ/cm<sup>2</sup>** (to a 1mm-thickness)

The UVA dose is a minimum dose recommended. The intensity depends on the lamp power and the lamp distance.

UVA dose may be increased by a longer exposure time. A higher dose of UV or an overexposure will not damage the product. However a lower UVA dose can have a detrimental effect on product final properties therefore it is very important to ensure minimum recommended UVA dose is met with your curing system.

## 2- ABchimie4002UV - UV mercury curing

Recommended settings for the best properties of the resin ABchimie4002UV LED:

**Hg Lamp** (Miniterm UV 250f Super, Aeroterm), 120W/cm

Minimum UVA dose : **1000mJ/cm<sup>2</sup>** (to a **100µm-thickness**)

Minimum UVA dose : **3000mJ/cm<sup>2</sup>** (to a **1mm-thickness**)

The UVA dose is a minimum dose recommended. The intensity depends on the lamp power and the lamp distance.

UVA dose may be increased by a longer exposure time. A higher dose of UV or an overexposure will not damage the product. However a lower UVA dose can have a detrimental effect on product final properties therefore it is very important to ensure minimum recommended UVA dose is met with your curing system.

## PROPERTIES

### LIQUID PROPERTIES:

Color	Clear liquid
Composition	Urethane Acrylate
Viscosity (@ 25 °C)	2 000 mPa.s (approximative)
Non-volatile residue	100%

### CURED PROPERTIES:

Color	Transparent
Adhesion on polyester film	Cross cut 0
Touch	Smooth
Temperature	From - 50°C to + 150 °C

ABchimie4002UV and ABchimie4002UV LED are compliant with REACH and RoHS regulations. If you want a certificate, please contact us ([info@abchimie.com](mailto:info@abchimie.com)).

## **PACKAGING:**

### ***Resin ABchimie4002UV LED***

Syringe	4002UV LED S30
Cartridge	4002UV LED C330
Bulk 1kg	4002UV LED 01K
Bulk 5kg	4002UV LED 05K
Bulk 20kg	4002UV LED 20K

### ***Resin ABchimie4002UV***

Syringe	4002UV S30
Cartridge	4002UV C330
Bulk 1kg	4002UV 01K
Bulk 5kg	4002UV 05K
Bulk 20kg	4002UV 20K

### ***Cleaner (for uncured material)***

Bulk 5 litres	SND 05L
Bulk 5 litres	ABclean 05L

ABchimie4002UV and 4002UV LED don't contain UV tracer, if you need, you can order "T" version with UV tracer – 365nm:

Version T with UV tracer (for LED curing): ***ABchimie4002T UV LED***

Version T with UV tracer (for mercury lamp): ***ABchimie4002T UV***

## **STORAGE AND SHELF LIFE :**

ABchimie4002UV and ABchimie4002UV LED resin must be store in a dark container and closed. ABchimie4002UV and ABchimie4002UV LED mustn't be exposed at UV light. In any case, please refer to MSDS for good storage conditions.

### **Storage temperature: 5 to 30°C**

A temporary lower or higher temperature (maximum 40°C) during few days (transport) doesn't distort varnish properties.

In any case, please refer to MSDS for good storage conditions.

**Date by use:** 12 months after the date of manufacturing, protected from light, in original closed packaging.

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