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TECHNICAL DATA SHEET

ABchimie80K UV
ABchimie80K UV LED

April 2025

UV soft resin, Very High viscosity

ABchimie80K UV and ABchimie80K UV LED are a soft one component resin, UV curable which has a good adhesion on many substrates. It can be applied in high thickness deposit (few mm). Its curing is immediate with UV or LED radiation.

ABchimie80K UV and ABchimie80K UV LED offer local protection for your components. It especially give a good mechanical protection to high components, against vibrations. It also can be applied to bring robustness to your systems.

CHARACTERISTICS

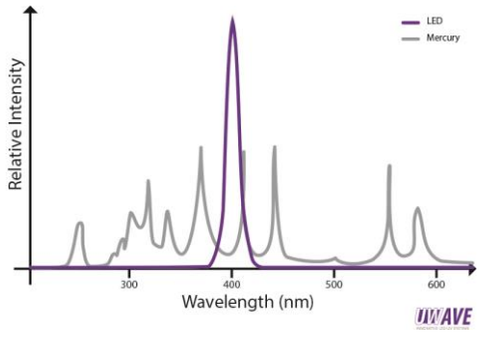
- Soft resin,
- Protection against humid and thermal environments,
- Excellent adhesion on many substrates (PCB, plastics,…),
- No VOC,
- Curing until 5mm-thickness,
- Very fast curing under UV LED exposure
- High speed process, increase of the productivity,
- Flammability resistance, **approved UL 94V0 (QMJU2-E308681)**

CURING CONDITIONS

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.

Whatever the curing system (polymerization), ABchimie80K UV and ABchimie80K UV LED resins are flexible resins and exhibit slight tack, even after complete polymerization.

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



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1- ABchimie80K UV LED - LED curing

Recommended settings for the best properties of the resin ABchimie80K UV LED:

LED lamp 395 nm

Minimum UVA2 dose : **3000mJ/cm²** (to a 1mm-thickness)

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

UVA dose may be increased by a longer exposure time. A higher dose of UV or a overexposure will not damaged 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- ABchimie80K UV - UV mercury curing

Recommended settings for the best properties of the resin ABchimie80K UV LED:

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

Minimum UVA dose : **3000mJ/cm²** (to a **1mm-thickness**)

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

UVA dose may be increased by a longer exposure time. A higher dose of UV or a overexposure will not damaged 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	Transparent (light yellow coloration)
Composition	Urethane Acrylate
Viscosity (@ 25 °C)	80 000 mPa.s (approximative)
Specific gravity (20°C)	1,1
Non-volatile residue	100%

CURED PROPERTIES:

Color	Transparent (light yellow effect)
Hardness Shore (after 7 days)	D15
Temperature	From - 50°C à + 150 °C
Tg	-19°C
CTE (if T < Tg)	50 ppm/K
CTE (if T > Tg)	150 ppm/K
Auto-extinguishing	UL94 V0
Breakdown voltage (TM 650 2.5.7.1)	> 1500V AC
Humidity resistance	65°C 85%HR - 1000hours
VRT in humidity	85°C/95%HR – 25°C/40%HR, 30min, 500h
Dielectric strength	60kV/mm

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ABchimie80K UV and ABchimie80K UV LED are compliant with REACH and RoHS regulations. If you want a certificate, please contact us (info@abchimie.com).

PACKAGING:

Resin ABchimie80K UV LED

Syringe	80K UV LED S30
Cartridge	80K UV LED C330
Bulk 1kg	80K UV LED 01K
Bulk 5kg	80K UV LED 05K
Bulk 20kg	80K UV LED 20K

Resin ABchimie80K UV

Syringe	80K UV S30
Cartridge	80K UV C330
Bulk 1kg	80K UV 01K
Bulk 5kg	80K UV 05K
Bulk 20kg	80K UV 20K

Cleaner (for uncured material)

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

STORAGE AND SHELF LIFE :

ABchimie80K UV and ABchimie80K UV LED resin must be store in a dark container and closed. ABchimie80K UV and ABchimie80K UV 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.

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.