

Series

# UVA LED

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Type: UV LED

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Printing process: screen printing

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Ink type: one and two-component

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Finish: glossy

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Materials: ABS, Cardboard, Cellulose acetate, Coated paper, Lacquered surfaces, Mylar, Paper, Polycarbonate, Polystyrene, rigid PVC, SAN, Self-adhesive PVC, Synthetic leather, treated PET, treated PETG, treated Polyester, Wood

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Main features:

- . The UVA LED Series is suitable for applications where the energy required for photo-initiation is supplied by UV-LED lamps.
- . Doesn't contain NVP (N-vinyl-2-pyrrolidone)
- . It doesn't contain organic solvents
- . Great reactivity
- . Glossy finish
- . Ink with medium viscosity - ready to use
- . Good flexibility
- . Good solidity to abrasion
- . Excellent printability
- . Good solidity for outdoor products

UVA LED Series can be printed with screen-printing clichet. fabric from 120 to 180 meshes (ideal 150.31).

Please remember the larger is the mesh opening, the greater is the thickness of deposited ink, consequently, the greater is the energy (UV radiation) which must be produced to obtain the maximum polymerization.

Due to the versatility of use of this ink, pre-tests are suggested.

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Certifications: CLP/GHS (EC 1272/2008), Conflict minerals free, EN 71-3, Reach (EC 1907/2006), RoHS

The EN 71:3 Directive is valid for standard shades of one component inks, two component inks, Ink system and Process colors, HD shades and for all not standard shades which do not contain metallic shades, metallic pastes or fluorescent pigments or inks.

In order to clarify any doubt on not standard shades, it is always recommended to provide us a specific request.

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Eco-sustainability (free of): Alogens, Animal origin ingredients, Aromatic Hydrocarbons, Azo dyes, Bisphenol A (BPA), Cyclohexanone, Formaldehyde, G-B Ester, Latex, Melamine, PAH, Persistent organic pollutants, Phthalates (listed in RoHS directive), Volatile organic compounds

Note: shades in the fluorescent color chart contain formaldehyde.

Note: inks are formulated without aromatics naphthas, potential IPA contaminations are minimal.

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Outdoor resistance (years): 3

Suitable for outdoor applications for periods not exceeding 2-3 years.

The pigments used have a solidity from 6 to 8 DIN.

In case of mixing with the transparent bases 70 TR or TP, or with the white 160 or 60 BN, the light fastness and atmospheric agents decrease.

If you want to increase the outdoor solidity, it's recommended to add 5-7% of UV adsorber to the ink.

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Drying process: UV

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The UVA LED Series ink solidifies (cures) only with UV radiation (photo initiation).

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The polymerization process through UV energy occurs not immediately, but progressively over time. The process needs 1-2 days to be complete.

The wavelength (energy) required for photo-initiation ranges from 385-395 nm. The polymerization also depends on the substrate on which it is printed, the thickness of the deposited ink, the speed of the conveyor belt and the lamps used.

Tests were carried out with a screen printing frame of 150.31 meshes, on white background.

#### Mechanical and chemical solidity:

Alcohol	
Flexibility (Elasticity or Bending)	
Plasticizers	
Surface hardness (Abrasion)	2H

The laboratory tests were carried out with a silk-screen printing plate with a 150.31 thread fabric.

To obtain maximum adhesion it is important to take into consideration the surface tension of the substrate, which must be greater than 38 N/m as the minimum limit. Ideal value: > 40 N/m

To obtain a certain value of the results of mechanical and chemical solidity, it is advisable to carry out the tests at least 48 hours after printing.

#### Colours range: HD, INK SYSTEM, QUADRICROMIA

160 HD	165 HD	10 GL	11 GS	12 AR	21 RS	22 RC	25 MG	27 VT	32 BL
40 VR	60 BN	65 NR	70 TR	1080	1081	1082	1083	TP	

Please refer to the Ink System ink color charts.

The Ink System are 12 colour shades for mixing of RAL, PMS and HKS colours.

The metallic shades are available only by mixing the relative pastes with the Transparent Base UVA 70 TR.

Gold paste 75 10-20%

Gold paste 76 10-20%

Gold paste 77 10-20%

Bronze paste 78 10-20%

Silver paste 79-050 10-15%

The metallic pastes composed with the relative transparent base UVA 70 TR, due to their particular composition, can oxidize.

The pot-life of the compounded METALLIC PASTES is about 5-6 working hours.

In the Ink System color chart are present the shades.

1080 yellow, 1081 magenta, 1082 blue, 1083 black, TP paste (CMYK), necessary for making four-color prints.

#### Auxiliaries and additives:

UV-DIL universal thinner	2,5%	5% max
XFH-N Green hardener	5%	for outdoor applications. diisocyanate content < 0,1%
XFH hardener	5%	10% max
UV 292 photoinitiator	2,5%	5% max
UV/N levelling agent	0,4%	

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UV-CL adhesion promoter	2,5%	5% max
UV Adsorber	8%	
Antistatic UV	1%	

For more information please refer to TDS "AUXILIARIES FOR UV"

Ink removal:  
DACS solvent  
Lavaggio telai solvent  
Aprimaglia Spray

**STORAGE:**

Please keep the cans in a dark place, at temperature of 15-25°C.

If the recommended temperature is higher than the suggested one or the cans are not completely closed, the shelf life and the qualities are drastically reduced.

**CLASSIFICATION:**

Before using this ink, consult the relevant safety data sheets available.

The safety data sheets provided comply with the REACH regulation (EC 1907/2006).

The hazard classification and related labelling are compliant with the CLP / GHS regulation (EC 1272/2008).

**OTHER INFORMATION:**

For more information on SERICOM ITALIA srl products, refer to the website [www.sericom.it](http://www.sericom.it)

**NOTE:**

Our technical consultancy activity, carried out orally, in writing or through tests or experiments, takes place on the basis of our best knowledge.

However, the same must be considered as information without any binding value, also as regards any third party industrial property rights.

This does not exempt the customer from performing his own checks on the products supplied by us in order to estimate the suitability or otherwise of the procedures and for the purposes intended.

The application, use and transformation of the products take place outside our control possibilities and therefore fall under the exclusive responsibility of the customer.