

Series

UV-TM LED

Type: UV LED

Printing process: screen printing

Ink type: one-component

Finish: glossy

Materials: ABS, Membrane keyboards, Polycarbonate, Polystyrene, rigid PVC, SAN, Self-adhesive PVC, Synthetic leather, treated Polyester

Main features:

- . The UV-TM LED series is suitable for applications where the energy required for photo-initiation is supplied by UV-LED lamps
- . Does not contain NVP (N-vinyl-2-pyrrolidone)
- . It does not contain organic solvents
- . Medium reactivity
- . Glossy finish
- . Pseudo-plastic medium viscosity ink ready for use
- . Good flexibility
- . Good abrasion resistance
- . Excellent printability
- . Good solidity for products exposed to the outside (indirect exposure)

The UV-TM LED series can be printed with screen printing clichés, mounted with fabric from 120 to 180 threads (ideal 150.31).

Keep in mind that the greater the mesh opening, the greater the thickness of ink deposited, consequently, the greater the energy (UV radiation) delivered to obtain the maximum polymerization.

Given the versatility of use, preventive tests are recommended before printing.

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.

Eco-sustainability (free of): 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)

Note: shades in the fluorescent color chart contain formaldehyde.

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

Outdoor resistance (years): 2

Good stability for prints that must be exposed outdoors (3-4 years, indirect exposure).

Tests performed in QUV, with a cycle of 600 hours (4 hours of humidification - 8 hours of UVA insolation - at a temperature of 40°C).

The tests performed do not take into account some external factors that are beyond our control:

- . Salt spray
 - . Acid rain
 - . Basic rains
 - . Presence of gases emitted into the environment
 - . Printing conditions
 - . Degradation of the support
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The pigments used have a light fastness of 7 DIN.

In the case of mixing with transparent bases 70 TR or TP, or with whites 160 or 60 BN, the resistance to light and atmospheric agents decreases.

If you want to increase the external solidity, we recommend adding the UV additive adsorber to the ink in the percentage of 5-7%.

Drying process: UV

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

The total ink curing takes place largely within an energy emission range between 385-395 nm. The polymerization also depends on the substrate on which it is printed, the thickness of ink deposited, the speed of the conveyor belt and the lamps used.

The tests were performed with a screen printing frame of 150.31 threads, on a white background.

Mechanical and chemical solidity:

Alcohol	good
Flexibility (Elasticity or Bending)	medium
Gasoline	good
Plasticizers	good
Surface hardness (Abrasion)	H

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

If you want to obtain a certain data of the results of mechanical and chemical solidity, you must carry out the tests at least 48 hours after printing.

Colours range: HD, INK SYSTEM, QUADRICROMIA

160 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 UV-TM LED 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 metallised pastes composed with the relative transparent base UV-TM LED 70 TR, due to their particular composition, can oxidize.

The pot-life of the compounded METALLIC PASTES is about 8 working hours.

In the Ink System color chart are present the shades.

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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
UV 94 F photoinitiator	2,5%	(reactivity) 5% max
UV 292 photoinitiator	2,5%	(for whites) 5% max
UV 406 photoinitiator	2,5%	(for colors) 5% max
UV/N levelling agent	0,5%	
UV-CL adhesion promoter	2,5%	5% max
UV Adsorber	8%	
Antistatic UV	1%	

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

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.