

Series

# UV-W

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Type: UV traditional

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Printing process: screen printing

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Ink type: one-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:

- . Does not contain NVP (N-vinyl-2-pyrrolidone)
- . It does not contain organic solvents
- . Percentage of VOC near to zero
- . Excellent reactivity
- . Glossy finish
- . Pseudo-plastic ink of medium viscosity-ready to use
- . Good flexibility
- . Good abrasion resistance
- . Excellent printability
- . Good solidity for products exposed outside

The UV-W series can be printed with screen printing cliches, mounted with fabric from 120 to 180 threads (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, and the possible differences in the quality of the supports used, 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)

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): 2

Suitable for outdoor applications for periods not exceeding 2 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 UV-W Series ink solidifies (polymerizes) only with UV radiation (photo-initiation).

The total polymerization of the ink takes place largely within a wide range of energy emission. Polymerization also depends on the substrate on which it is printed, the thickness of the ink, the speed of the conveyor belt and the lamps used.

The wavelength (energy) required for photo-initiation goes from 250-400 nm (ideal 365 nm) obtainable with a mercury pressure lamp of 80-200 W/cm. At a tape speed of 10 mt/mi.

The polymerization process through UV energy occurs not immediately, but progressively over time.

The process needs 1-2 days to be complete.

Mechanical and chemical solidity:

|                                     |      |
|-------------------------------------|------|
| Alcohol                             | good |
| Flexibility (Elasticity or Bending) | good |
| Plasticizers                        | good |
| Surface hardness (Abrasion)         | 2H   |
| Water                               | good |

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: EXTRA - M, INK SYSTEM, QUADRICROMIA

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 170   | 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.

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:

|                           |      |        |
|---------------------------|------|--------|
| Deionized water (thinner) | 15%  | max    |
| UV 94 F photoinitiator    | 2,5% | 5% max |
| UV 3 levelling agent      | 1%   | max    |
| NPT matting powder        | 2,5% |        |
| WAX PLT                   | 1,5% |        |
| UV Adsorber               | 8%   |        |
| Antistatic UV             | 1%   |        |

Ink removal:

Water mixed with isopropyl alcohol. 1:2

If the frame is washed immediately, even only with water.

If necessary, VS solvent, for a more thorough cleaning.

STORAGE:

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

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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.