INNOVATIVE COLORS sericom

Series XFP

Type: solvent

Printing process: screen printing

Ink type: two-component

Finish: glossy

Materials: ABS, Lacquered surfaces, Metal (in general), Natural fabrics, plasticized PVC, Polyamide, Polycarbonate, Polymethacrylate (PMMA), Polystyrene, Polyurethane, rigid PVC, SAN, treated PETG, treated Polyacetal (POM) (hard-plast), treated Polyester, treated Polyethylene (HD-PE, LD-PE), treated Polypropylene, Wood

XFP series is also used for printing on containers like beer or water crates.

Main features:

To be used only by adding the relative hardener at a specified ratio prior to processing.
Thinner is added after addition of hardener.
The mixed ink should be allowed to pre-react for approx. 15 minutes prior to print.

The pot life of the ink is valid for a specified period of time, up to 8h/20°C.
Higher temperatures and humidity will reduce pot life (suggested temperature at 20-25°C and low moisture content in the workplace).

. Glossy appearance
. Excellent printability and solvability
. Excellent abrasion strength and surface hardness
. Excellent solidity to chemical agents, especially to detergents, oils, greases.
. Suitable for applications that need to be exposed to the outside

Because of the versatility of use of this ink, and the possible differences in the quality of the supports used, pre-tests are suggested.

We recommend to use the hardener XFH-N Green in the percentage of 16% (6:1) up to 20% (5:1).

Higher percentage of hardener improves the chemical solidity but decreases the pot-life of the ink.
A smaller percentage of hardener guarantees better pot-life, better elasticity, but less chemical solidity.

Series XFP does not contain CYCLOHEXANONE, BISPHENOL A, NAPHTHA, IPA-PHA, G-B ESTERE.
Metallic shades may contain polycyclic aliphatic hydrocarbons (Nafte9) or the presence of IPA-PHA.

Certifications: CLP/GHS (EC 1272/2008), Conflict minerals free, EN 71-3, Medical (uni en iso 10993-5:2009) (for colors: 60 BN, 65 NR, 10 GL, 22 RC e 32 BL), Reach (EC 1907/2006), RLS-EuPIA (
formulated with substances accepted by RSL), 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): 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.

Outdoor resistance (years): 6

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Suitable for outdoor application.

The used pigments have a solidity from 7 to 8 DIN.

In case of mixing with the transparent bases 70 TR or TP, or with 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.

Drying process: 15 minutes at room temperature

XFP series dries physically by evaporation of solvents or through chemical reaction.
Drying times depend on various factors:
. Thickness of printed ink layer (single print, multi-layer print).
. Type and amount of thinners/retarders used.
. Type of oven
. Drying temperature
. Type of substrate on which the ink is deposited.

Ink dries physically by evaporation of solvents:

. 10-15 minutes at room temperature (depending on local conditions)
. 20-30 sec at 50°C in an air circulation oven.
(The test performed in our laboratory was carried out under the following conditions: 8 mt / min, 120.34 screen printing mesh, medium thinner XF-DM at 15%, air circulation oven).

Two-component drying by polymerization:

When the Series XFP is added with the relative hardener, at the beginning the ink dries physically, followed by the polymerization reaction which takes place at room temperature (20°C) in at least 5-7 days.
If the printed film is heated in an oven at 80°C for about 10 minutes, the polymerization is completed within 24 hours.
At a temperature of 140°C (film obtained with 120.34 screen printing mesh, a dilution with a medium thinner of XF-DM at 15%, 30 minutes inside oven) we obtain a film with a high degree of polymerization and with a maximum of solidity.

Mechanical and chemical solidity:

Acids	excellent
Alcohol	excellent
Aliphatic organic solvents	excellent
Aromatic organic solvents	excellent
Bases	excellent
Detergents	excellent
Diesel	excellent
Gasoline	excellent
Greases	excellent
Mechanical stress (Impacts)	good
Oils	excellent
Surface hardness (Abrasion)	good

The laboratory tests were carried out with a completely polymerised film (48 hours in a muffle at 80°C), using a pad printing cliche at 36 microns, medium thinner XF-DM at 15%. Or at room temperature (20°C) after 6-7 working days.

Colours range: EXTRA - M, HD, INK SYSTEM, QUADRICROMIA

110	111	112	115	117	120	121	122	124	130
131	132	133	134	136	140	141	142	150	151
160	165	165 HD	10 GL	11 GS	12 AR	21 RS	22 RC	25 MG	27 VT

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32 BL	40 VR	60 BN	65 NR	70 TR	1080	1081	1082	1083	TP

Please refer to the Glossy, Metallic, Fluorescent and 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 XFP 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 XFP 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:
1080 yellow, 1081 magenta, 1082 blue, 1083 black, TP paste (CMYK), necessary for making four-color prints.

In the range are also included the following shades :

160 HD Opaque white

165 HD Opaque black

Auxiliaries and additives:

XF-DM medium thinner	15%	doesn‘t contain cyclohexanone and naphtha
XF-DL slow thinner	15%	doesn‘t contain cyclohexanone and naphtha
VS fast thinner	15%	doesn‘t contain cyclohexanone and naphtha
XFH-N Green hardener	13%	for outdoor applications. diisocyanate content < 0,1%
M 160 conc. levelling agent	0,5%	
Universal antifoam agent	0,5%	
Antisilicone/s	1,5%	
UV Adsorber	8%	
Antistatic/s	1,5%	
PP 1 adhesion promoter	5%	
PP 2 adhesion promoter	5%	
NPT matting powder	2%	6% max

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.

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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.