

Series

2004

Type: solvent

Printing process: pad printing

Ink type: one and two-component

Finish: glossy

Materials: ABS, Aluminium, Coated paper, Lacquered surfaces, Metal (in general), Mylar, Polycarbonate, Polymethacrylate (PMMA), Polystyrene, Polyurethane, rigid PVC, Self-adhesive PVC, treated Ecoallene, treated PETG, treated Polyacetal (POM) (hard-plast), treated Polyester, treated Polyethylene (HD-PE, LD-PE), treated Polypropylene, Wood

Main features:

- . The 2004 series doesn't contain Cyclohexanone and aromatic Naphthas.
- . Excellent printability
- . Soluble during printing
- . Glossy appearance
- . Moderate solidity for applications that must be exposed to the outside
- . Quick drying
- . Excellent opacity
- . Excellent adhesion even on surfaces with poor wettability, using the relative hardener.
- . Excellent chemical-physical solidity
- . Pseudoplastic ink

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

If necessary, help the adhesion of the ink modifying the surface tension of the various supports with specific treatments such as: plasma treatment, corona, flaming (physical treatments), cleaning or degreasing (chemical treatments).

It's possible to do tests even with post physical treatments.

2004 series mixed with hardener has a pot life of approx. 8h (at 20°C).

Higher temperatures and humidity will reduce pot life

(suggested temperature at 20-25°C and low moisture content in the workplace).

Used as two-component ink, 2004 series has to be mixed with 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.

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): 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 3-4 years.

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

1000H-N (10%) hardener is recommended for outdoor applications.

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 the 5-7% of UV adsorber to the ink.

Fluorescent shades (refer to the FLUO color chart) are formulated with special pigments which, due to the molecular constitution, do not guarantee high light solidity and are easily decomposed by electromagnetic radiation.

Outdoor exposure cannot be longer than two months.

Drying process: 15 minutes at room temperature

2004 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:

- . 15 minutes at room temperature (depending on local conditions)
- . 60 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, clichet at 36 microns, medium thinner 2004 DM at 15%, air circulation oven).

Two-component drying by polymerization:

When the Series 2004 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 20 minutes, the polymerization is completed within 36 hours.

Mechanical and chemical solidity:

Alcohol	even as one-component
Cosmetics	as two-components
Detergents	as two-components
Gasoline	as two-components
Greases	as two-components
Oils	as two-components
Surface hardness (Abrasion)	good
Water	as two-components

The tests must be carried out 5-6 days after printing

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

110	111	112	115	117	120	121	122	124	130
131	132	133	134	136	140	141	142	150	151
160	165	104	104 BIS	105	106	107	108	110 HD	111 HD
112 HD	115 HD	120 HD	121 HD	122 HD	130 HD	136 HD	140 HD	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	75 RE	75 RE GLITTER	76 RE	76 RE GLITTER	77 RE	77 RE GLITTER	78 RE	78 RE GLITTER
79-050	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 2004 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 2004 70 TR, due to their particular composition, can oxidize.

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

All the metallic shades, due to their chemical constitution, may contain aromatic naphthas but not cyclohexanone.

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:

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2004 DM medium thinner	20%	doesn't contain cyclohexanone and naphtha
VH slow thinner	20%	doesn't contain cyclohexanone and naphtha
VS fast thinner	20%	doesn't contain cyclohexanone and naphtha
1000H-N Green hardener	8%	for outdoor applications. diisocyanate content < 0,1%
1000H-N hardener	10%	
1000H-N-00 hardener	8%	
Retarder paste	10%	max
M 2000/S levelling agent	1%	
Universal antifoam agent	1%	
Antisilicone/s	1,5%	
UV Adsorber	8%	
NPT matting powder	2%	6% max
1000H hardener	10%	for indoor

Ink removal:

DACS 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.