

Series

OFD

Type: solvent

Printing process: screen printing

Ink type: one-component

Finish: glossy

Materials: Aluminium, Aminoplastic resins (hard-plast), Brass, Ceramic, Chrome metal, Copper, Glass, Iron, Lacquered surfaces, Metal (in general), Phenolic resins (hard-plast), Polyamide, Stainless steel, treated Polyacetal (POM) (hard-plast)

Main features:

Formaldehyde-free ink.

. Synthetic resin based ink

In order to achieve mechanical and chemical resistance, OFD has to be oven-cured

. Glossy finish

. Prints show good mechanical abrasion resistance as well as a high chemical resistance

. The ink is suitable for outdoor applications

. Good coverage

. Good elasticity

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, we recommend to follow the pre/post printing tips.

. Cleaning / degreasing

. Flaming / corona / plasma

. Post treatment (flaming).

To obtain a good adhesion on the glass (cosmetics, baby bottles, glassware for household items.) it's absolutely necessary to make sure that it is perfectly clean and that it does not contain residues of graphite, silicone, dust, grease or fingerprints. For this reason we recommend a preliminary pretreatment (flame or flame lined with Pyrosil silane method) before production.

To obtain the maximum adhesion, the substrate to be printed must have a surface tension of 40 N/m. (at least).

For a good storage of closed can ink, exposure to temperatures below or above 25-35°C and direct exposure to sunlight should be avoided.

Even after use, the can must be closed again to prevent the evaporation of the solvents and a increased of viscosity.

To eliminate the possible presence of electrostatic charge, and to improve the print quality, we recommend adding 5-10% of "Antistatic and Retardant Paste". Higher doses tend to matte the printed film.

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): Alogens, Animal origin ingredients, Azo dyes, Bisphenol A (BPA), Cyclohexanone, Formaldehyde, G-B Ester, Latex, Melamine, Persistent organic pollutants, Phthalates (listed in RoHS directive)

Note: shades in the fluorescent color chart contain formaldehyde.

Note: all our inks are formulated with non carcinogenic aromatic naphthas as the benzene content is below than 0.1% by weight.

Series

OFD

IPA contamination are also possible but always below the limit of 1000 ppm.

Outdoor resistance (years): 5

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 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.

Drying process: oven

The OFD series need to be oven-cured to obtain the complete polymerization and dry of printed film. Temperatures and curing times are as follows:

100°C	30-40 minutes (Moderate chemical-physical solidity)
120°C	15-20 minutes (Good chemical-physical solidity)
150°C	7 minutes (Maximum solidity obtainable)

Above 160°C, yellowing can occur which could pollute the basic colors, which is very evident in whites and in the transparent base.

Mechanical and chemical solidity:

Acids	weak
Alcohol	ethyl
Bases	weak
Cosmetics	
Detergents	commonly used in dishwashers
Flexibility (Elasticity or Bending)	
Gasoline	
Greases	
Oils	organic and inorganic
Washings	excellent (about 300 cycles in the dishwasher in standard conditions of use, 45-60°C with low-alkaline detergents)
Water	

Low water vapor permeability, low water absorption, flexible.

The solidity tests must be carried out 5-6 days after printing, with a complete polymerization of the ink.

Resistances should not be checked before completion of oven curing. Allow a cooling time of at least 1 hour prior to checking resistances.

Colours range: EXTRA - M, INK SYSTEM, QUADRICROMIA

110	111	115	120	121	122	124	130	132	133
136	140	141	151	160	165	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 Glossy, Metallic 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 OFD 70 TR.

Series

OFD

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 OFD 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.

Auxiliaries and additives:

OFD-DM medium thinner	15%	
LH-DL slow thinner	15%	
XF-DR fast thinner	15%	
Retarder paste	10%	max
M 3000 levelling agent	0,5%	
Universal antifoam agent	0,2%	
Antisilicone/s	0,2%	
UV Adsorber	8%	
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.

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.