COMEC Italia

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Series

PLT 15

Type: solvent

Printing process: pad printing

Ink type: one and two-component

Finish: glossy

Materials: ABS, Aluminium, Lacquered surfaces, Metal (in general), Polycarbonate, Polymethacrylate (PMMA), Polystyrene, rigid PVC, SAN, Self-adhesive PVC, treated PETG, treated Polyester, treated Polyethylene (HD-PE, LD-PE), treated Polypropylene, Wood

Main features:

. Glossy appearance
. Medium opacity
. Soluble during printing
. Good chemistry solidity if used as a two-component
. Due to the resin that composes the ink, it is suggested for short-term outdoor applications.

Because of the versatility 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.

PLT 15 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, PLT 15 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.

Certifica tions: CLP/ GHS (EC 1272/ 2008), Conflict minerals free, EN 71-3, Reac h (EC 1907/ 2006), RoHS

The EN 71:3 Directive is valid for standard shades, 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, Azo dyes, Bisphenol A (BPA), 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. IPA contamination are also possible but always below the limit of 1000 ppm.

Outdoor resistance (years): 3

Suitable for outdoor applications for periods not exceeding 2-3 years. The pigments used have a solidity from 6 to 8 DIN. PLHN (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.

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If you want to increase the outdoor solidity, it's recommended to add the 5-7% of UV adsorber to the ink.

Drying process: 15 minutes at room temperature

PLT 15 series dries physically by evaporation of solvents or through chemical reaction. Drying times depend on various factors:

. thickness of printed in k 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, cliché at 36 microns, medium thinner PLA at 15%, air circulation oven).

Two -component drying by polymerization:

When the Series PLT 15 is additivated 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 48 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

The addition of the hardener also helps the adhesion on materials with low surface tension (PP, PE, PETG ...).

The tests must be carried out after 5-6 days from the printing to complete polymerization.

Colours range:

110	111	112	115	117	120	121	122	124	130
131	132	133	134	136	140	141	142	150	151
160	165	165 S	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	1080	1081	1082
1083	TP								

Please refer to the 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 70 TR.

Gold paste 75 10 -20%

Gold paste 76 10 -20%

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Gold paste 77 10 -20%

Bronze paste 78 10 -20%

Silver paste 79-050 10 -15%

The metalized pastes composed with the relative transparent base 70 TR, due to their particular composition, can oxidize. The pot -life of the compounded METALLIC PASTES is about 8 working hours.

Ink System shades are:
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 HDO opaque white

165 HD Opaque black

165 S Non magnetic black

Auxiliaries and additives:

PLA medium thinner	20%	
PLD slow thinner	20%	
PLB fast thinner	20%	
PLH hardener	10%	
PLHN hardener	10%	for outdoor applications
Levelling agent	1%	
Antisilicone/s	1,5%	
UV Adsorber	8%	
Matting powder	2%	6% max

Ink removal:
PLDL solvent

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).**

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.