

Technical Data Sheet

UV Letterpress ink

1. APPLICATIONS FIELDS:

Especially designed UV curing inks for the rotation letterpress and offset printing onto paper, cardboard and plastics made of Polypropylene (PE/PP), PVC and polystyrene. Substrates may differ in their chemical structure or method of manufacture. A test for suitability must always be carried out before printing. Antistatic, Mould Release Agents and Slip Additives may have negative effects on adhesion, and should be detected and removed prior to printing.

2. CHARACTERISTICS:

The highly reactive UV letterpress inks of series 010 UV new show good printability and fast curing.

The inks of 010UV series can be combined with UV screen printing inks. The following process as printing with laser-printer is possible, if the prints are well cured.

A special product test is recommended prior to production. The inks of the 010 UV new series are constitutionally free from toxic elements and solvents. The raw materials used meet with the limits stipulated by the EEC regulation EN 71 (Safety of Toys), part 3 (Migration of Certain Elements) of December 1994.

3. RANGE OF COLOURS:

Euro- Colours/4-colour Process Printing Inks:

Euro-Yellow	010 UV 2141
Euro-Magenta	010 UV 3323
Euro-Cyan	010 UV 5296
Halftone Black	010 UV 9066

4. ADDITIVES:

The inks of the 010 UV series are ready to use.

5. PRODUCT RESISTANCE AND LIGHT FASTNESS:

inks	Alcohole	Nitro	Alkali	Light fastness
010UV2141	+	+	+	5
010UV3323	+	+	-	5
010UV5296	+	+	+	8
010UV9060	+	+	+	8

resistancy : - = bad + = good
Light fastness : 1 = bad 8 = good

6. PROCESSING INSTRUCTIONS:

6.1 Pre-treatment:

Pre-treatment of polyolefines (PE/PP) must be performed by CORONA-discharge in order to insure the adhesion of the UV screen printing ink to the substrate. In case of PE, surface tension needs to be at least 38 mN/ m (Dynes/cm), in case of PP at least 48 mN/ m (Dynes/cm).

6.2 Curing Conditions:

The varying UV absorption of the individual colours results in a range of curing properties depending on colour and opacity. All colours of the 010 UV series can be cured by the use of medium pressure mercury vapour lamps (at 120 - 160 W/cm).

However, it must be noted, that low radiation intensity, excessive machine speeds or excessive film thickness can have a negative influence on the curing properties and adhesion.

Un-cured prints are considered a hazardous waste. Therefore, it is recommended to cure misprints under the UV lamp as a matter of principle. After curing, spoilage can be disposed by conventional methods and may be incinerated without causing any difficulties.

6.3 Printing Equipment:

The 010 UV new ink series can be used with the majority of marketed letterpress plate materials. The best results can be achieved by using soft plates for solids and harder plates for line, text and process works.

Roller material made from EPDM (Ethylene-Propylene-Diene-Monomers) is recommended to use for printing with 010 UV new. Nitril rubber rollers show minimal swelling effects.

7. CLEANING:

Clichés can be cleaned with the plate cleaner 35352 and the rollers of the ink fountains should be cleaned with the roller cleaner 34622. If cleaning is not performed by fully automatic cleaning equipment, protective gloves must be worn. Cleaning liquids that are contaminated with UV products should not be used for the washing of working materials that were used with conventional screen printing inks. Solvents that contain UV residue are not suitable for reclamation and must be treated as a separate waste.

Plate cleaner	35352
Roller cleaner	34622

010 UV NEW

8. SHELF LIFE:

A shelf life of 12 months is guaranteed when storing the inks at 21°C and in the original packing container. At higher storage temperatures the shelf life will be reduced.

9. PRECAUTIONS:

UV inks may cause irritations and can increase the sensitivity of the skin, possibly leading to hypersensitivity. Therefore, the use of disposable gloves and protective goggles is strongly recommended.

For further information on the safety, storage and environmental aspects concerning these products please refer to the Material Safety Data Sheet (MSDS).

Additional technical information may be obtained from our staff of the Technical Application Department.

A.M. RAMP & Co. GmbH
Lorsbacher Strasse 28
D-65817 Eppstein

Tel: +49 (0) 6198-304-0 Fax: +49 (0) 6198-304-287
E-Mail: info@ruco-inks.com
www.ruco.de

