UviPak UCD

UviPak UCD Ink

It is essential to thoroughly stir the ink before use. Properly stirring the ink for three to five minutes using a high-speed agitation device is recommended. UviPak UCD is designed to be press ready. If thinning is required, for static elimination, the ink should be thinned up to 10% by weight using UviPak UCD thinner. It is recommended that thinner be added in 1% increments until desired viscosity is achieved.

UviPak UCD is recommended to be used with 355 – 420 count mesh made with low elongation monofilament polyester (140 to 165/cm2). The ideal squeegee durometers are from 70 to 85 and resistant to UV inks.

Stencil materials must be solvent resistant and produce a thin film stencil (3-6 microns over mesh). Zenith, Dirasol 911, 914, SuperCoat 915, 916, 917, AST 210 and 220 dual cure, or Dirasol 132 one pot direct emulsions are recommended to give the highest print quality and stencil durability.

UV Ink
for multiple
substrate container
decorating

UviPak UCD Ink Features

The main features are:

- Superior Multiple Substrate Adhesion Properties
- Gel-Structured Ink Body to Eliminate Ink Drip Through
- Excellent Opacity over White, Natural and Colored Containers
- Monopigmented Seritone Matching System for Bright, Clean Colors
- Outstanding Rub, Water and Product Resistance
- Photoinitator Package Designed for Optimal Cure
- High Gloss Finish

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CURING

Ultraviolet cure (UV) inks are dependent on a high dosage of ultraviolet light to initiate cure, the process that converts the ink from a wet to a dry film. The light must, in effect, see through or penetrate the layer of ink to achieve proper cure.

The UviPak UCD series inks are designed to cure at line speeds up to 90 bottles per minute depending on the type of curing unit in use and bottle size. Cure speeds are dependent on colors, film thickness, opacity and condition of the curing unit.

If under-cure is experienced with any color, demonstrated through a wet film or loss of gloss, it is usually due to excessive ink deposit. To correct this, the mechanics, such as mesh, squeegee, color density, machine speed, or the amount of UV energy should be changed.

Reduction of color density is easily achieved by letting the color down with UCD-MX (Mixing Clear) until proper cure is obtained. Cross hatch tape adhesion should be at least 90% immediately out of the reactor/cure unit with final adhesion developing in one to four hours. If total cure on a given substrate with a specific color needs to be established, the piece should be passed through the reactor one or two times. This usually will promote final adhesion. Flame treatment of containers is also recommended to improve adhesion. Full water and/or product resistance is achieved within 24-hours of complete cure.

SPECIAL MODIFICATIONS

For extreme water resistance, the AF-CAT catalyst can be added at 3% to 5% by weight. A 24-hour post cure is required when using the AFCAT for full water and/or product resistance. The addition of AF-CAT will give the mixed ink a potlife of 4 to 8 hours. Mix only the amount of ink to be used in that period.

COVERAGE

Standard line and IMS colors should yield approximately 2,800 to 3,500 square feet/gallon (64 to 80 m²/liter) depending on film thickness.

WASH UP

Wash up on press with Xtend™ press washes and after the production run with Xtend™ ink degradents.

PRE-PRODUCTION TESTS

It is strongly recommended that all substrates be tested before use as supposedly similar substrates can vary between manufacturers and even between different batches from the same manufacturer. Certain plastics may be impregnated with lubricants that, like plasticizer migration, may impair adhesion and block resistance, even a considerable period after printing. Other plastics can become brittle or caused to curl after printing. Uvipak UCD is not recommended for printing on PVC extruded bottles due to potential embrittlement of the substrate.

END-USER MUST DETERMINE SUITABILITY OF THIS PRODUCT FOR THE INTENDED USE PRIOR TO PRODUCTION.

SPECIAL MATCHES

Special colors can be supplied against prints, wet ink, PANTONE®* numbers, or other Fujifilm Sericol standard colors.

COMPATIBILITY WITH OTHER INKS

UviPak UCD can be inter-printed over and/or under the UviPak PE and UviPak PET series. UviPak UCD can be intermixed with UviPak PE at a maximum of 25% by weight of the completed formula. It is not recommended that UviPak UCD be intermixed with UviPak PET or any solvent based ink system.

COLOR AVAILABILITY

The UviPak UCD color range includes standard printing colors as well as intense matching system colors. This color range includes opaque pigments (where appropriate), which allows a variety of difficult colors to be matched on different colored containers.

SPECIFICATIONS:

UVIPACK UCD INKS

IMS Toners
- UCD-SB -IMS Shading Black
- UCD-TW - IMS Tinting White
- UCD-062 - IMS Yellow
- UCD-064 - IMS Yellow (Green Shade)
- UCD-066 - IMS Yellow (Red Shade)
- UCD-114 - IMS Orange
- UCD-121 - IMS Red (Yellow Shade)
- UCD-127 - IMS Violet
- UCD-164 - IMS Red (Blue Shade)
- UCD-165 - IMS Magenta BS
- UCD-167 - IMS Magenta YS
- UCD-230 - IMS Blue (Green Shade)
- UCD-233 - IMS Blue (Red Shade)
- UCD-235 - IMS Blue RS
- UCD-325 - IMS Green

Opaque Colors
- UCD-141- Fire Red
- UCD-210 - Ultra Blue
- UCD-221 - Emerald Green
- UCD-301 - Opaque Black
- UCD-311 - Opaque White
- UCD-026 - Brilliant White

Halftone Colors
- UCD-IHY - Intense Halftone Yellow
- UCD-IHR - Intense Halftone Red
- UCD-IHB - Intense Halftone Blue
- UCD-IHK - Intense Halftone Black
- UCD-HTX - Extender Base

Thinners, Additives and Clears
- UCD-TH - Thinner
- UCD-MX - Mixing Clear

Media Type
- Treated Polyethylene Containers
- Treated Polypropylene Containers
- PET Containers
- Polycarbonate Containers

Metallics

The standard Mixing Clear (UCD-MX) is recommended for use with all metallic and pearlescent powders. The viscosity of the UCDMX offers good powder suspension, excellent cure speeds, and very good mixed shelf life. The following mixing ratios are recommended:

Intense Seritone Matching (IMS) Colors

The UviPak UCD ink series uses the Intense Seritone Matching System (IMS). The IMS system has been designed to enable printers to readily match PANTONE and most other colors in-house.

The system consists of IMS base colors, each of which has been selected for its cleanliness of tone and suitability for intermixing. Using the IMS base colors plus the Shading Black (UCD-SB) and Tinting White (UCD-TW), almost any color can be produced. It is not recommended to use either the 009/301 Dense/Opaque Black or 311/312 Opaque White for color matching purposes.

All colors have been formulated to contain no pigments which contain lead or other heavy metals. These products are formulated to meet CONEG Packing Legislation. If necessary, certification of lead and heavy metals content can be obtained from an independent laboratory.

Storage

Containers should be tightly closed immediately after use. At the end of long printing runs, surplus ink from the screen should be disposed of. Refer to Material Safety Data Sheet (MSDS) for materials and conditions to be avoided.

In the interest of maximum shelf life, storage temperatures should be between 50°F (10°C) and 77°F (25°C). When stored under these conditions the maximum shelf life is shown by the use by dates, which are clearly marked on all ink containers.

Safety and Handling

Refer to MSDS for safety, handling, and waste disposal information.

Recommended mixing ratios	UV Metallic Pastes	Metallic Powders
Silvers (aluminum)	12% by weight	8% by weight
RS Gold	22% by weight	20% by weight
GS Gold	25% by weight	20% by weight

Due to the possibility of chemical changes after mixing, it is recommended that metallic shades be mixed fresh daily.

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THE FUJIFILM GREEN POLICY

We at Fujifilm believe that "sustainable development" of the Earth, mankind, and companies in the 21st century is an issue that must be addressed with the highest priority. As a socially responsible corporation, we actively undertake corporate activities with our environmental values in mind. We strive to be a dedicated steward of the environment and assist our customers and corporate partners in doing the same.

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