Uvijet KV

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Uvijet KV inks are exclusively designed for the production of decorative print in deep draw thermoforming applications. Uvijet KV inks have been developed to be printed on Fujifilm Acuity UV inkjet printers (2545, 2565, 3545, 4004, 4006, 4008, 4224, 4226, 4228 and 5004, 5006, 5224, 5226).

Uvijet KV jets exactly like a normal UV ink, but during the forming process becomes thermo-plastic, elongates, and finally cools to its original properties. Its elongation is excellent.

UV inkjet thermoforming inks

Uvijet

Uvijet KV Features:

- Developed for deep-draw thermoforming
- Outstanding adhesion range
- Excellent finishing properties including bending, creasing, routing and guillotining
- Cured by conventional UV lamps for immediate use
- High elongation
- CMYK color set for near photographic print quality
- Recommended for both internal and external applications
- Anti-reflective low satin finish
- Forms perfectly between 302°-392°F (150°-200°C)

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UVIJET KV INK
FOR ACUITY SELECT & SELECT HS PRINTERS

INK PROPERTIES

The Uvijet KV ink range is a high quality UV curable inkjet system designed for piezo drop-on-demand printheads. The inks offer superb dot reproduction, light-fast colors with excellent adhesion and elongation on a wide range of materials commonly used in thermoforming applications.

APPLICATION RANGE

Uvijet KV inks are formulated specifically to maximize the benefits of Fujifilm's Acuity Select and Select HS UV curing printers. Uvijet KV inks are designed to decorate rigid plastic materials commonly used in thermoforming.

Some forming applications on clear materials may require a white back-up print. In these cases, Fujifilm recommends KV021 White which has also been designed specifically for thermoforming applications.

In some cases the use of Uvijet KV can lead to excessive sticking to the mold after forming, especially with thin materials. Where this occurs, a silicone release agent (ZEA09), should be wiped on the mold prior to forming in order to optimize release.

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

PRE-PRODUCTION TESTS

Uvijet KV ink has been engineered primarily for thermoforming applications; its use as a general purpose graphic ink needs to be carefully assessed.

CURING

Excellent cure and adhesion are achieved immediately upon print and UV curing. However, maximum adhesion, chemical, scuff and scratch resistance may not be obtained until 24 hours after initial curing. The actual level of cure will depend upon ink thickness, substrate and the output of the UV curing lamps being used. Superior through cure may be obtained by reducing the print speed to increase the overall UV dose.

CHEMICAL AND ABRASION RESISTANCE

Uvijet KV inks have good water and abrasion resistance.

PLASTICS

Certain plastics may contain lubricants which, like plasticizers, migrate impairing adhesion and block resistance.

There may also be residues from glues and adhesives used on backing sheets. This can be overcome by wiping the surface with isopropyl alcohol (IPA) before printing.

To reduce the risk of problems generated by the build-up of static electricity it is advisable to pass an earthed anti-static brush over the material prior to printing. Allow static generated from protective sheets to dissipate before printing. Ensure that the printer is cited as per recommended humidity/temperature recommendations 40 - 70% RH, 64˚F to 86˚F (18°C to 30°C).

OUTDOOR USE

Accelerated weathering tests have been carried out in a Xenon Arc Weatherometer set to the SAEJ1960 standard. Under these conditions the accelerated weathering of Uvijet KV inks equates to approximately 12 months outdoor exposure in a temperate climate. If finished prints will be subjected to outdoor exposure exceeding 12 months, the use of an overprint clear or overlaminate is strongly recommended.

STORAGE

Uvijet KV ink should not be stored in direct sunlight or near heat sources and should be kept away from peroxides. For optimum shelf-life, products should be stored at moderate temperatures between 41˚F to 86˚F (5°C to 30°C). Storage outside of these temperatures may lead to deterioration in the performance of the products.

When stored in a cool environment the inks are expected to have a shelf-life of 12 months from date of manufacture.

The information and recommendations contained in this Technical Data Sheet, as well as technical advice otherwise given by representatives of our Company, whether verbally or in writing, are based on our present knowledge and believed to be accurate. However, no guarantee regarding their accuracy is given as we cannot cover or anticipate every possible application of our products and because manufacturing methods, printing stocks and other materials vary. For the same reason our products are sold without warranty and on condition that users shall make their own tests to satisfy themselves that they will meet fully their particular requirements. Our policy of continuous product improvement might make some of the information contained in this Technical Data Sheet out of date and users are requested to ensure that they follow current recommendations.

Adhesion Chart

Media Type	Adhesion	Forming (Outside)	Forming (Inside)
PS	★★★	★★★	-
HIPS	★★★	★★★	-
ABS	★★★	★★★	-
PVC	★★★	★★★	-
PETG	★★★	★★★	★★
PC	★★★	★★★	★
Acrylic	★★	★★★	★

Excellent ✪✪✪ Good ✪✪ Fair ✪

SPECIFICATIONS:

UVIJET KV INK

- KV052 Yellow
- KV867 Magenta
- KV215 Cyan
- KV004 Black
- KV021 White
  Supplied in 2 liter sealed pouches.
- QV017 UV Flushing Solution
  Available in 1 liter containers.

Safety & Handling

Uvijet KV Inks

- Have a flash point greater than 131°F (55°C) and are therefore not classified as 'dangerous substance' under the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR).
- Comprehensive information on the safety and handling of Uvijet ink is given in the appropriate Fujifilm Safety Data Sheets. Sheets available upon request.

Environmental Information

Uvijet KV Inks

- Does not contain ozone-depleting chemicals as described in the Montreal Convention.
- Are formulated free from aromatic hydrocarbons.
- Are free from any volatile solvent and can therefore be considered to have less impact on the environment when compared to solvent-based products.

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- Has certification to the International Environmental Standard ISO 14001.
- Is committed to minimizing the risk to users of our products, and also to minimizing the impact of our activities on the environment, from formulation through to production and supply.
- Research and development team, work to an in house Health Safety and Environmental policy, termed 'Design for Health, Safety and Environment', with the aim of proactively developing products with the least impact on health, safety and the environment.
- Regularly review and monitor our impacts and activities, setting objectives and targets as part of a continual improvement process.
- Is committed to reducing waste through better use of raw materials, energy, water, re-use and recycling.

Uvijet KV ink approved for Nordic Swan Ecolabelled printers.

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Uvijet KV has gained UL GREENGUARD Gold Certification.

This helps manufacturers create - and helps buyers identify - interior products and materials that have low chemical emissions. GREENGUARD Certification is part of UL Environment, a business unit of UL (Underwriters Laboratories). GREENGUARD Certification. More detail here: ul.com/gg

GREENGUARD
PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS UL.COM/GG UL 2818
GOLD