

Uvijet KI

UV Curing Ink System for Acuity Advance & Select Inkjet Printers



PRODUCT INFORMATION

Features

- Conventional UV ink system
- Outstanding adhesion range
- Superb flexibility on roll fed media
- Excellent finishing properties, bending, creasing, routing, guillotining
- Fast cure for high production output
- Intense colours with a wide colour gamut
- Recommended for both internal and external applications
- Suitable for decoration of uneven substrates

Ink Properties

The Uvijet KI ink range is a high quality UV curable inkjet system designed for piezo drop-on-demand printheads. The ink has been specially developed for the Acuity Advance and Select printers and offers excellent dot reproduction, light-fast, bright colours and will adhere to a range of rigid and flexible uncoated materials.

Colour Range

KI052 Yellow
 KI867 Magenta
 KI215 Cyan
 KI004 Black

Supplied in 2 litre sealed pouches

KI021 White

Supplied in 1 litre sealed pouches

QV017 UV Flush

ZE720 Fusion Adhesion Master

Available in 1 litre containers.

Application Range

Uvijet KI inks are specifically formulated to maximise the performance of the Fujifilm Acuity Advance UV curing printers. These printers accept rigid and flexible materials up to 48mm thick and Uvijet KI inks are designed to decorate a wide range of uncoated media. For certain media, however, it is possible to further improve the adhesion with the use of Uvijet Fusion Primers.

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

Media Type	Adhesion Characteristics
Poster Display	✓✓✓✓
Display Board	✓✓✓✓
Non Corrugated Board	✓✓✓✓
Foam Centred Board	✓✓✓✓
PVC Foam Board	✓✓✓✓
Acrylic	✓✓✓
Glass	✓✓
Styrene	✓✓✓
Self-adhesive PVC	✓✓✓✓
Gloss Rigid PVC	✓✓✓
Fluted Polypropylene	✓ ZE720 can improve to ✓✓✓✓
Polyethylene	✓✓ ZE720 can improve to ✓✓✓✓
Polycarbonate	✓✓✓
Coated Banner Vinyl	✓✓✓✓
Canvas (to stretch)	✓✓✓✓
Digital Dibond	✓✓✓

Excellent ✓✓✓✓ Good ✓✓✓ Fair ✓✓ Poor ✓

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 UV curing lamps being used. Superior through cure may be obtained by reducing the print speed by selection of an alternative print mode to increase the overall UV dose.

Pre-production Tests

Uvijet KI ink is formulated to give good adhesion to most major brands of plastic and polyethylene materials. Polyolefins should have a surface energy level of 42 dynes/cm or higher. For certain applications

where finishing prints may require cutting, drilling or routing, it is recommended that a Uvijet Fusion Primer is used prior to printing to aid adhesion and mechanical performance. However it is strongly recommended that all substrates are tested before a commercial run. For information on adhesion promoters refer to the Uvijet Fusion Primer range.

Plastics

Some plastic substrates may contain lubricants which, like plasticisers, may impair adhesion and block resistance for a considerable time after printing.

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, 18-30 °C.

Chemical and Abrasion Resistance

Uvijet KI inks have good chemical and abrasion resistance. However for optimum resistance over- varnishing with a durable UV screen varnish such as Uvibond UV383 is recommended.

Outdoor Use

Accelerated weathering tests have been carried out in a Xenon Arc Weatherometer set to the SAEJ 1960 Standard. Under these conditions the accelerated weathering of Uvijet KI inks equates to approximately 24 months outdoor exposure in a temperate climate such as Northern Europe.

For polyethylene and polypropylene materials such as Correx, it is recommended that Fusion Adhesion Master ZE720 is applied prior to printing to maximise outdoor weather resistance.

Storage

Uvijet KI 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 5°C and 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.

Fujifilm Speciality Ink Systems Limited:

- Has certification to the International Environmental Standard, ISO 14001.
- Has certification to the Quality Management Standard, ISO 9001.
- Has certification to the Occupational Health and Safety Standard, OHSAS 18001.
- Is committed to minimising the risk to users of our products, and also to minimising 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.

Safety and Handling

Uvijet KI Inks:

- Have a flash point greater than 60°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 inks is given in the appropriate Safety Data Sheets.

Environmental Information

Uvijet KI Inks:

- Do 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.

Uvijet Fusion Adhesion Master - ZE720:

- Does not contain ozone-depleting chemicals as described in the Montreal Convention.

Uvijet KI inks are approved for Nordic Swan Ecolabelled printers. The Nordic Ecolabel is a well-established and internationally recognised environmental labelling scheme that contributes to sustainable consumption and helps consumers identify environmentally-friendly products.

The information and recommendations contained in this Product Information sheet, as well as technical advice otherwise given by representatives of Fujifilm Speciality Ink Systems Limited and its associated companies, 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 Product Information sheet out of date and users are requested to ensure that they follow current recommendations.

FUJIFILM SPECIALITY INK SYSTEMS LIMITED

Pysons Road, Broadstairs
Kent CT10 2LE
United Kingdom
T: +44 (0)1843 866668
F: +44 (0)1843 872184
www.fujifilm.eu