Technical Data Sheet

Ultra *Jet* DUV-C

Marabu

UV-curable Inkjet printing ink especially developed for direct printing on 3-D packaging and container.

Particularly suitable for industrial single-pass printing.

Vers. 5
2018
04. Dec

Field of Application

Substrates

The Ultra *Jet* DUV-C substrate range includes:
Rigid substrates:

- Glass*
- PET

*in combination with Pre-Treatment and Primer P4 for full adhesion properties.
The adhesion properties of the Ultra *Jet* DUV-C inks on glass are significantly improved by the use of the special Primer P4. The application of this special "solvent" is possible, either by manually wiping it onto the entire surface with a cloth , using a spray gun or by means of a spray nozzle integrated in printing machine.

To meet the specifications of direct to container or packaging Pre-Treatment may also be needed for example with flame treatment including PYROSIL®
Since all the print substrates mentioned maybe different in printability even within an individual type, preliminary trials are essential to determine the suitability for the intended use.

Field of use

Ultra *Jet* DUV-C is suitable for devices employing the below mentioned print heads:

- Xaar 1001,1002,1003
- Konica Minolta 512 + 1024 including i series

Characteristics

Drying

Ultra *Jet* DUV-C ink series includes products that require different curing methods.
The Cyan, Magenta, Yellow, Black and White, are optimised for LED curing and pinning that is necessary in single-pass industrial printing.

To achieve the final resistance that is required by some industrial applications the varnish should be overprinted. The varnish requires to be cured with a medium pressure mercury lamp.
The best curing is achieved with 395 or 385 nm LED lamps. Where relevant for the varnish a UV medium pressure mercury lamp.
Ultra *Jet* DUV-C is a post-curing UV ink which will achieve its final adhesion and resistances after 24 hours.

The curing speed of the ink and varnish is generally dependent upon the kind of UV-curing unit (reflectors), number, age, and power of the UV-lamps where applicable, the printed ink film thickness, colour shade, substrate in use, as well as the printing speed.

Fade resistance

Only pigments of high fade resistance are used for the Ultra *Jet* DUV-C range. All basic shades are suited for a 2-year vertical outdoor exposure, referred to the middle European climate and suitable substrates.

Range

Basic Shades

170	White
428	Yellow
439	Magenta
459	Cyan
489	Black
910	Varnish

Auxiliaries

DI-UR	Cleaner
DI-UR 3	Cleaner
P 4	Primer

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Shelf Life

The shelf life for an unopened ink container if stored in a dark room at a temperature of 15 - 25 °C is:
- 9 months for 170 & 910
- 1 year for all other standard products

The ambient temperature may fall below this value only once for max. 2-3 days. Under different conditions, particularly other storage temperatures, the shelf life is reduced. In such cases, the warranty given by Marabu expires.

Change-over

Before changing over to Ultra *Jet* DUV-C it is recommended to completely drain the ink system before rinsing all ink-carrying components with cleaner DI-UR. This cleaner has been chemically adjusted to the ink.

DI-UR 3 can be used for cleaning print heads and other ink-carrying components, and should be used if any parts need to be soaked for awhile. This cleaner has been chemically adjusted to the ink. Thanks to its higher viscosity it is especially suited for printers with automatic cleaning units.

Note

Our technical advice whether spoken, written, or through test trials corresponds to our current knowledge to inform about our products and their use. This is not meant as an assurance for certain properties of the products nor their suitability for each application.
You are, therefore, obliged to conduct your own tests with our supplied products to confirm their suitability for the desired process or purpose. The foregoing information is based on our experience and should not be used for specification purposes. All characteristics described in this Technical Data Sheet refer exclusively to the standard products listed under "Range", provided that they are processed in accordance with their intended use and only when used with the recommended auxiliaries. The selection and testing of the ink for specific applications is exclusively your responsibility. Should, however, any liability claims arise, they shall be limited to the value of the goods delivered by us and utilised by you with respect to any and all damages not caused intentionally or by gross negligence.

Labelling
For Ultra *Jet* DUV-C and its auxiliaries, there are current Material Safety Data Sheets available according to EC regulation 1907/2006, informing in detail about all relevant safety data including labelling according to the present EEC regulations as to health and safety labelling requirements. Such health and safety data may also be derived from the respective label.

Safety rules for UV printing inks
UV-inks contain some substances which may irritate the skin. Therefore, we recommend to take utmost care when working with UV-curable printing inks. Parts of the skin soiled with ink are to be cleaned immediately with water and soap. Please read the notes on labels and safety data sheets.

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