

FARBAJET-SF

High performance thermoformable LED-curable inkjet inks.

Fields of application

Farbajet-SF inks excel in formable applications, demonstrating a remarkable ability to elongate under stress at elevated temperatures. The versatile chemistry is compatible with a range of piezoelectric printheads and can be tailored for use with most energy-curable printhead technologies.

- Polycarbonate
- Print-treated Polyesters
- PVC
- PE

Note: Certain substrates may require surface treatment to achieve optimal adhesion.

The optimum injection temperature depends on the configuration of each machine but is usually between 40 and 45 °C. The ink contains pigments engineered with sub-micron particle sizes, ensuring optimal dispersion and smooth application for high-quality printing. These inks have been successfully thermoformed on polycarbonate at 230 °C.

Compatible printer heads

Devices using the print heads listed below are compatible with this Farbajet-SF ink:

- Dimatix,
- Konica Minolta,
- Ricoh,
- Seiko,
- Toshiba, and
- Xaar,

Preliminary testing is necessary before printing since different substrates may have different surface characteristics that affect their printability.

Ink Set and Auxiliaries

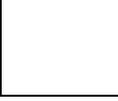
Farbajet-SF ink offers a wide colour gamut. The ink set consists of Yellow, Magenta, Cyan, Black and White colours. It is suitable for multi-pass printing with excellent image quality. The white ink offers high opacity and good jetting reliability. For the ink change-over, it is recommended to use the cleaners listed in the table. We do not recommend this ink for toys due to the foreseeable contact with the mouth since the

The above statements are accurate to our best knowledge and belief. However, due to the great number of possible influences during the manufacture of the substrate and the variation in the application process we suggest that suitability testing take place under actual conditions before production. No legally binding guarantee of certain properties or of the suitability for a definite application purpose can be derived from the above information.

Compatible with a variety of piezo print heads that are often used with UV printers.

possible presence of residual monomers and decomposition products of the photo-initiators cannot be excluded even when sufficiently cured.

Basic Shades and Auxiliaries

BASIC COLORS	SHADES	COLORS	CODE
YELLOW	Standard		FJT (SF)-JET UV-LED 203
MAGENTA	Standard		FJT (SF)-JET UV-LED 302
CYAN	Standard		FJT (SF)-JET UV-LED 506
BLACK	Standard		FJT (SF)-JET UV-LED 900
WHITE	Standard		FJT (SF)-JET UV-LED 100
AUXILLIARIES			
RFR 241		Cleaner	Flushing

Characteristics

Pre-treatment

We recommend Flame pre-treatment using the VetroJet Pro surface enhancement machine, equipped with the VetroCart 180 and 180 P cartridges and primer APT 276. Priming can significantly improve the adhesion properties on challenging. It may be advisable to remove dust and other impurities off the glass and metal surface prior to printing. This will help in enhancing the adhesion properties of the ink. We offer a comprehensive range of pretreatment solutions, including primers and specialty chemicals, tailored for specific substrates such as PP, HDPE, LDPE, and many other media.

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Drying

Farbajet-HF is a LED curable ink, and best curing is achieved at a wavelength of 395 nm including H Bulb: Cure with undoped, medium pressure mercury lamp; Cure dose: 300 mJ/cm²; D Bulb: Cure with iron-doped mercury lamp; Cure dose: 300mJ/cm². Minimum peak intensity is 8W/cm². This post-curing UV ink will achieve the final adhesion and resistances after 24 hours. The curing speed depends on the type of UV-curing unit (reflectors), number, age, and power of the UV lamps, the printed ink film thickness, colour shade, substrate in use, as well as the printing speed. Formulated to cure effectively under commonly used LED systems, it is optimized for standard industrial curing parameters. Precise settings should be verified on-site with the specific UV curing equipment.

Fade resistance

The Farbajet-SF series consists of pigments with high fade resistance in the Blue Wool Scale range of 5-8. These inks show weathering resistance up to 1000 hours based on colour difference and adhesion. This typically corresponds to ~1 year of outdoor exposure. Actual performance depends on test protocols (ASTM or equivalent), substrate type, and exposure conditions. Outdoor performance depends on several factors: geographic location, UV intensity, substrate type, and finishing. Under standard conditions, these inks perform in line with industry expectations. For accurate estimates, on-site testing is recommended.

Shelf Life

The shelf life for an unopened ink container if stored in a dark room at a temperature of 15 - 25 °C is:

- 1 year for 203, 302, 506, 900
- 9 months for 100

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.

Change over

This ink set comes with a cleaner i.e., RFR 241 for flushing and maintenance purpose. This cleaner has been chemically adjusted to the ink. It is recommended that before changing over to Farbajet-HF inks all the ink carrying components must

be drained and rinsed with cleaner RFR 241. It can also be used if any part needs to be soaked for a while.

Storage Conditions

The recommended storage temperature is 15~25 °C, humidity is 50~75%. The containers must be kept tightly closed in a dry, cool and well-ventilated place. They must be kept away from heat. Care must be taken and kept locked up and out of reach of children. Keep away from food, drink and animal feeding stuffs. Store in accordance with local regulations.

Precautions

Handle in accordance with good industrial hygiene and safety practices. Keep the environment temperature within the recommended temperature range during the printing process, otherwise fluency problems probably happen. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing, and avoid breathing vapours or mists. Do not eat, drink or smoke when using this product. For further information on safety, storage and environmental aspects concerning these products, please refer to Safety Data Sheet. Additional Technical information can be obtained from our product safety department.

Imported & Marketed By:

SPINKS INDIA,
Plot No 135, Pace city I, Sector 37,
Gurugram, Haryana- 122001(India).

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