

# CRYSTAL<sup>®</sup> UFE - LED

BLUN3 Ink

UV-CURING JET INKS WITH ENHANCED FLEXIBILITY  
OPTIMUM PERFORMANCE WITH LED LAMPS

**Ink Profile:**

The CRYSTAL<sup>®</sup> UFE - LED series of jet inks combine the recognised flexibility of the well-known CRYSTAL<sup>®</sup> UFE brand with the capability of high speed LED UV curing.

The formulations balance flexibility with good surface resistance. The products are intended for jetting through piezo DOD print heads at elevated temperatures.

The inks have been developed to have good adhesion to a wide range of substrates and especially many plastics, including vinyl and styrene. Adhesion to olefinic plastics such as polyethylene and polypropylene can be achieved after adequate surface treatment.

The products are suitable for outdoor use and with a suitable substrate and correct application should withstand 1 year plus exposure.

**Products:**

**CRYSTAL<sup>®</sup> UFE- LED U5950 (Black)**

Process colours or shades on request.

**Typical Physical Properties:**

Property	Range
Viscosity cps @30C	22-24
@40C	16-18
@50C	12-13
@60C	8-10
Surface Tension (dynes/cm)	24-28
Cure Dose mJ/cm <sup>2</sup> (See below)	30 - 60
Cure Speed	
2 x 4W 395nm LED	Up to 100m/min.
2 x 4W 365nm LED	Up to 100m/min

**Shelf Life:**

9 months.

**Curing Information:**

Actual cure speed achieved will depend upon ink thickness, substrate

may be increased somewhat if higher intensity (greater irradiance) sources are used. These cure speeds have been obtained on both 395 and 365nm LED sources. Other UV LED wavelengths may also be suitable. Specific trials will be necessary to ascertain optimum cure conditions. Consult your SunJet® Contact for further details.

**Material & Temperature Compatibility:**

Compatible materials which can be kept in long term contact with the inks include: Stainless steel, aluminium, FEP, PVDF, PTFE, PP, PE (LD&HD)

Incompatible materials include: Butyl rubber, Viton, nitrile, PU-rubbers, Neoprene, PVC, Brass.

Ideally the inks should be stored between 5 and 40°C. Inks can be used in jetting equipment up to 55°C. Prolonged exposure to temperatures above 55°C should be avoided.

**Recommended Flush:**

**CRYSTAL® MUS 0519** (for heads with 'wetting' faceplates). Contact your SunJet® representative if other print heads (e.g., TTec, Xaar318) are to be used.

**Application:**

A range of 'Ink Integration Guidelines' are available for various print head and ink combinations. Consult your SunJet® contact for more information.

**Commercial Supply:**

Standard packaging sizes are:

Pack Size	Description
4 x 1 Litre	HDPE Jug-handled bottles
4 x 5 Litre	HDPE Jug-handled bottles

Other packaging options are available. Please contact the SunJet® sales and support offices for more information.

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*This information has been carefully compiled from experience gained in the laboratory and under commercial conditions. However, the product's performance and its suitability for the customer's purpose depend on the particular conditions of use. We recommend that customers satisfy themselves that each product meets their requirements in all respects. Subject to change without notice. All sales are subject to our standard terms and conditions of sale.*  
**1<sup>st</sup> October 2008.**  
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