


Technical Product Information			
ULTRASTAR UV FP-8220 Silver			
Article-No.: 052466..		Product Name: ULTRASTAR UV FP-8220 Silver	
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Product description:

ULTRASTAR UV FP-8220 is a radical curing, solvent free stable one-component UV-Flexo ink for paper, board and different non-absorbent substrates based on METALURE® pigments.

The ULTRASTAR UV FP-8220 offers a very high metallic effect in combination with good rub resistance and adhesion power.

The ULTRASTAR UV FP-8220 Silver shows excellent coverage.

The radiation curing (UV light) ink ULTRASTAR UV FP-8220 may release odour-generating by-products during the drying process and is neither low-migration nor low-odour. Due to our production processes for this product, we cannot guarantee necessary measures for FCM (Food Contact Materials), such as special raw material selection, control of raw materials and end products regarding composition and impurities or production according to GMP.

A SoC is therefore not available for this product.

When using this product in indirect food contact, the suitability for this application has to be tested before commercial use by the user through suitable analyses.

Application:

ULTRASTAR UV FP-8220 is suitable for flexo printing on paper, board and different film substrates, for labels, flexible packaging and carton folders. Sufficient for narrow-web, as well as wide-web applications.

ULTRASTAR UV FP-8220 is based on leafing pigments and provides high brilliance. In practice, finishing, e.g. in-line or off-line overvarnishing, hot foil stamping, thermal transfer printing is possible. Individual test are necessary prior to commercial use.

For printing on thermographic papers use an overprint varnish or the thermo-head could be damaged, when used on pure metallic ink film.

As with all metallic inks the substrate has a big influence on the final result. Very absorbent or uneven substrates often cause poor pigment orientation resulting in inferior brilliance. In some cases, the use of primers for an improvement of the substrate surface is advantageous.

ULTRASTAR UV-inks are suitable to be overprinted in-line. It is recommended to cure before varnish is applied, to preserve the metallic effect. Over lacquering reduces the metallic effect. This influence as well as the cohesion should be tested prior to any commercial use.

Product properties:

Curing speed:

On many substrates the ULTRASTAR UV FP-8220 shows, using a UV-lamp capacity of 140 Watt/cm and printing speeds of 80 m/min, a fast and good curing (MEK-test).

Strong absorbent and transparent substrates can have a negative impact to the curing properties of the ink.

Rub resistance:

Completely cured ULTRASTAR UV FP-8220 provides good rub resistance on almost all substrates. To meet high demands on rub resistance an overprint varnish should be applied, ideally in-line with additional curing.

However, any finishing reduces the metallic effect.

Adhesion:

ULTRASTAR UV FP-8220 shows good adhesion to coated label papers, PE and OPP films. Corona treatment is recommended, also by using coated papers.

The maximum adhesion takes effects after around 24h.

Adhesion can be improved by adding *ULTRASTAR UV FAP-80 adhesion promoter*.

Tests are necessary prior to any commercial use.

Additional product properties:

ULTRASTAR UV	FP-8220 Silver
Pigment content	appr. 3.25%
Pigment size (D₅₀)	appr. 10 µm
Solvent content	0%
VOC	0%

For specifications of our products, please refer to the technical data sheet.

Recommended printing parameters:

Anilox configuration:

The metallic effect depends on the ink lay down; The more hiding power, the higher the brilliance.

The following parameters have shown to be useful:


	L/cm	L/inch	Volume cm ³ /m ²	Volume BCM/in ²
Full areas & coarse lines	80-120	200-300	11-14	7.0-9.0
Fine lines	140-170	360-440	7-10	4.5-6.5

Printing speed:

At 140 Watt/cm UV-lamp capacity and 15 cm³/m² Anilox volume a printing speed of 90 m/min can be achieved. Dependent on substrate, the printing speed varies.

Printing viscosity: FP-8220 is supplied with print viscosity.

Dilution:

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The ink is already adjusted to printing viscosity. It's not recommended to add reactive diluents as a negative impact to optical effect, curing speed and stability of the ink could occur. If necessary to adjust the viscosity, this can be achieved by a low addition of reactive diluents like HDDA, TPGDA or TMP(EO)TA at press-side.

If unavailable, up to 5% of Methoxypropanol or N-Methylpyrrolidon can be added.

Cleaning recommendations:

ULTRASTAR UV-inks can be cleaned by using conventional UV-cleaning agents. Also with esters or ester/alcohol mixtures the uncured inks can be removed easily from the cylinders.

Please refer to the safety data sheet and the safety guidelines given there.

Handling:

ULTRASTAR UV-inks are stable, brilliant one-component inks. That can printed without modification. Blending of with other components should only be done on ECKART's recommendation in order to avoid a possible decrease in quality.

Metallic inks tend to settle during storage because of the high specific gravity of the pigment. This is normal and not due to a lack of quality. The inks can be easily stirred up and homogenised again. This should be done before viscosity is checked. No pigment settling should be left on the bottom of the container.

When handling UV-inks, please refer to the safety data sheet and the safety guidelines given there.

Storage and transportation:

ULTRASTAR UV-inks should be stored at temperatures below 25°C. Direct sunlight should also be avoided.

High temperatures can lead to gelling. Low temperatures can result in the separation of low soluble binder components.

Opened containers should never be handled in the direct sunlight, since these results in a preliminary polymerisation.

Shelf life: 6 months

Important: ECKART strongly recommends disposing of used ink after running on press, as the shelf-life of this material can be greatly reduced due to various factors such as light, heat, contaminants etc.

ECKART cannot guarantee the shelf life of printing ink which has been previously used or modified, nor for ink which has been stored out with the conditions above.

For further information or samples, please contact:

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The data on this technical information sheet correspond with the current status of our knowledge and experience. The liability for the application and processing of our products lies with the buyer, and he is also responsible for observing any third party rights. We reserve the right to alter any product data as a result of technical progress or further developments in the manufacturing process.