


Technical Product Information			
ULTRASTAR FPG GP-72100 Silver			
Article-No: 021609...		Product Name: ULTRASTAR FPG GP-72100 Silver	
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### Product description:

ULTRASTAR FPG GP-72100 is a solvent-based gravure ink, based on METALURE pigments for absorbent substrates like paper and carton. Mirror-like effects are possible utilizing ULTRASTAR FPG GP-72100 and additionally excellent hiding power.

The ink ULTRASTAR FPG GP-72100 was especially developed for printing on food packaging (indirect contact) and is produced under GMP conditions. However we have not finalized all tests such as migration testing. The suitability of the series for this application cannot be guaranteed by ECKART yet and has to be tested prior to commercial application (e.g. by migration testing or risk assessment).

FPG = Food Packaging Grade

### Application:

ULTRASTAR FPG GP-72100 is a solvent-based gravure ink. Ideal suitable for printing on paper and carton, e.g. labels, flexible packaging, folding carton and gift-wrap.

ULTRASTAR FPG GP-72100 is developed for surface printing to create highest / high brilliant effects, which can substitute metalized substrates.

As with all metallic inks the substrate has an influence on the final result. Very absorbent or uneven substrates often cause poor pigment orientation resulting in inferior brilliance. This is true not only for optical properties as brilliance and hiding power, but also for printing properties such as adhesion and transfer. In some cases, the use of primers to improve the substrate surface is advantageous.

### Product properties:

#### Rub resistance and lamination properties:

ULTRASTAR FPG GP-72100 is based on non-leafing pigments. The split proof and the lamination properties are excellent as long as the adhesion to the substrate is given. The rub resistance is very good on almost all substrates. Over lacquering is therefore neither necessary nor recommended, as this would reduce the metallic effect.

#### Adhesion:

ULTRASTAR FPG GP-72100 shows good adhesion on typical paper and carton qualities. Intercoat adhesion has to be tested prior to any commercial use.

### Additional product properties:

ULTRASTAR	FPG GP-72100 Silver
<b>Pigment content</b>	appr. 4,0 %
<b>Pigment size (D<sub>50</sub>)</b>	appr. 10 µm
<b>Solid content</b>	appr. 8,0 %
<b>Binder</b>	Nitrocellulose (NC)
<b>Solvent</b>	Acetate

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

The supply viscosity of ULTRASTAR FPG GP-72100 offers flexibility to the user (e.g. to direct blend the ink with process colours; to adjust the drying; to adjust the individual print viscosity).

### Recommended printing parameters:

#### Cylinder configuration:

Both etched and engraved cylinders are suitable (depending on the design). The following parameters have shown to be useful:

#### Highest brilliance, also for fine details:

Line count: ~ 100 lines/cm  
Cell depth: 30 – 35 µm

For higher film weights or hiding power, cylinders with 80 – 90 lines and appropriate cell depth are recommended. However, the metallic effect could be reduced by printing too high film weights.

#### Printing speed:

The maximum printing speed depends on individual press conditions, substrate and chosen cell volume. Normally the effect improves with increasing printing speed. The ink is suitable for highest printing speeds.


**Printing viscosity:** 13 – 15 s (DIN 4-cup)  
19 – 21 s (Zahn 2-cup)

The ideal printing viscosity also depends on cylinder configuration and may vary from the given data.

Solvent might evaporate during the printing, which would lead to an increase of viscosity and this impact the print quality in a negative way. Please check viscosity regularly and adjust, if necessary, with solvent.

#### Dilution:

ULTRASTAR FPG GP-72100 should be adjusted to printing viscosity with ethyl acetate. The amount of solvent may depend on the chemical nature of the solvent.

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### Cleaning recommendations:

ULTRASTAR FPG inks can be removed from the cylinder with esters or alcohol/ester blends at any time.

In any case contamination of the ink with cleaning agents must be avoided in order to maintain stability and optical properties.

Please refer to the safety data sheet for safety instructions.

### Handling:

ULTRASTAR FPG ink is a stable one-component ink with excellent metallic effect and brilliance.

The inks can be printed as delivered or adjusted to print viscosity.

However, blending of ULTRASTAR FPG inks 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 because of the high specific gravity of the pigment. This is normal and not due to a lack of quality. The ink 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.

Please refer to the Safety Data sheet of ULTRASTAR FPG GP-72100 for further handling guidelines.

### Storage and transportation:

All ULTRASTAR products should be stored at temperatures below 25°C. High temperatures as well as very low temperatures should be avoided as these conditions could damage the product (oxidation/ gassing or flocculation of binder/additives with low solubility).

As the solvents in all ULTRASTAR inks are highly volatile, it is recommended to keep drums tightly shut and avoid unnecessary opening.

ECKART cannot guarantee shelf life stability for used products. Often enough used inks are printed again; we recommend optical tests prior to commercial use.

Additionally, used ink should be stored in a drum with air vent valve as possible contaminations (e.g. water content in solvents) can lead to gassing.

**Shelf life:** 12 months

For further information or samples, please contact:

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