


Technical Product Information			
PLATINSTAR GX-2912 Silver			
Article-No: 024111...		Product Name: PLATINSTAR GX-2912 Silver	
REVISION: 0	EDITION: JUNE 2021	IDENT-NO.: 00540.E	PAGE: 1 OF 2

Product description:

PLATINSTAR GX-2912 is a solvent-based gravure ink based on platin dollar pigments for mirror like effects on non-absorbent substrates and brilliant metallic effects on absorbent substrates.

The ink PLATINSTAR GX-2912 is solvent based, but 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:

PLATINSTAR GX-2912 is a solvent based gravure ink for printing on film for labels and flexible packaging as well as gravure printing on paper or board for labels, flexible packaging, folding carton and gift wrap.

PLATINSTAR GX-2912 is developed for reverse printing on transparent films to create mirror like effects, which can substitute metalized substrates, foil blocking or de-metalizing processes.

PLATINSTAR GX-2912 is also suitable for surface printing on transparent and opaque films as well as printing on paper or board.

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. 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.

In case of reverse printing on film, the suitability of the film has to check carefully as the mirror-like effect is not achievable on all films.

Product properties:

Rub resistance and lamination properties:

PLATINSTAR GX-2912 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:

PLATINSTAR GX-2912 is recommended also for critical substrates such as (untreated) OPP, PET and PE as well as on

paper and board. Pre-treated films (preferably in-line corona treated) give usually excellent adhesion. On paper or board, the adhesion can be improved by using a primer.

Due to the large variety of films individual tests before any commercial use is necessary.

Additional product properties:

PLATINSTAR	GX-2912 Silver
Pigment content	approx. 7.4 %
Pigment size (D₅₀)	approx. 10 µm
Solid content	approx. 9.9 %
Binder	Polyvinyl butyral (PVB)
Solvents	Alcohol & Ester & Methoxy propanol

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

The supply viscosity of GX-2912 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 design). The following parameters have shown to be useful:

Reverse print on transparent film:

Line count: 70 lines/cm (180 lines/inch)
Cell diameter: 165 µm
Channel: 25 µm
Graver angle: 120°

For more coverage, cylinders with 60 lines/cm (150 lines/inch) and suitable cell depth recommended. In order to apply less ink use cylinders with 80 – 100 lines/cm (200 – 250 lines/inch).

Surface print on film:

Line count: 100 lines/cm (250 lines/inch)
Cell diameter: 117 µm
Channel: 18 µm
Graver angle: 120°


For higher film weights or hiding power, cylinders with 80-90 lines and appropriate cell depth recommended. However, the metallic effect could reduce 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)

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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:

PLATINSTAR GX-2912 should be adjusted to printing viscosity with Isopropanol. For faster drying, the ink can be diluted with any kind of alcohol or ester (e.g. Ethanol or Ethyl Acetate). The amount of solvent may depend on the chemical nature of the solvent.

Cleaning recommendations:

PLATINSTAR GX-2912 can removed from the cylinder with alcohols or alcohol/ester blends at any time.

In any case, contamination of the ink with cleaning agents must avoided in order maintaining stability and optical properties.

Please refer to the safety data sheet for safety instructions.

Handling:

PLATINSTAR products are stable one-component inks with excellent metallic effect and high brilliance. The inks can be printed as delivered or adjusted to print viscosity. However, blending of PLATINSTAR inks with other components should only 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 inks can easily be stirred up and homogenised again. This should be done before viscosity is checked. No pigment settling should left on the bottom of the container.

Please refer to the Safety Data sheet for further handling guidelines.

Storage and transportation:

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

As the solvents in all PLATINSTAR inks are highly volatile, it's 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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