


Technical Product Information	
PRISMASTAR GX-5205	
Article-No: 020456..	Product Name: PRISMASTAR GX-5205 Silver

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Product description:

PRISMASTAR GX-5205 is a solvent-based gravure ink based on rainbow effect pigments for non-absorbent substrates.

PRISMASTAR rainbow effect inks can offer either a cost advantage over alternative technology, e.g. holographic foil, or a security feature for brand protection and product identification.

The ink series PRISMASTAR GX is solvent based, but neither low-migration nor low-odour. Therefore it might contain unevaluated substances with the potential to migrate. Further essential measures for food packaging inks like specific raw material selection, analytic control of raw materials and final products on composition and impurities, GMP production, can not be guaranteed for our ink series PRISMASTAR GX.

Application:

Ideal suitable for printing on film, e.g. self-adhesive labels and flexible packaging, especially when reverse printed.

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:

PRISMASTAR GX-5205 is based on non-leaving 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. Overlacquering is therefore neither necessary nor recommended as this would reduce the metallic rainbow effect.

Adhesion:

PRISMASTAR series is recommended for OPP, pre-treated PET und PE. Pre-treated films (preferably in-line corona treated) usually give excellent adhesion. Due to the large variety of films, individual tests prior to any commercial use are necessary.

Additional product properties:

PRISMASTAR	GX-5205 Silver
Pigment content	ca. 6.0%
Pigment size (D₅₀)	ca. 10 µm
Solid content	ca. 10.0%
Binder	Nitrocellulose (NC)
Solvents	Alcohol & Ester

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

The supply viscosity of PRISMASTAR GX-5205 offers flexibility to the user (e. g. to direct blend the ink with process colors; 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:

Reverse and surface print on transparent film:

Line count: 70 lines/cm (180 lines/inch)
Cell depth: 30 - 35 µm

Surface print on opaque film:

Line count: 80 - 100 lines/cm (200 - 250 lines/inch)
Cell depth: 30 - 35 µm

For higher film weights or hiding power, cylinders with 60 lines/cm (150 lines/inch) 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 might impact the print quality in a negative way. Please check viscosity regularly and adjust, if necessary, with solvent.

Dilution:

PRISMASTAR GX-5205 should be adjusted to printing viscosity with ester/alcohol (1:1) or ester (e.g. ethyl acetate or isopropyl acetate). For slower drying methoxy propanol could be used as a retarder

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The amount of solvent may depend on the chemical nature of the solvent.

Cleaning recommendations:

PRISMSTAR GX-5205 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:

PRISMSTAR products are stable one-component inks with excellent metallic effect and brilliance.

The inks can be printed as delivered or after adjusting viscosity. However, blending of PRISMSTAR GX-versions 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 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.

Please refer to the Safety Data sheet of PRISMSTAR GX-5205 for further handling guidelines.

Storage and transportation:

All PRISMSTAR 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 PRISMSTAR 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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