


Technical Product Information			
PRISMSTAR SX series			
Article-No: 052283..	Product Name: PRISMSTAR SX-5321	Article-No: 052343..	Product Name: PRISMSTAR SX-5324
REVISION: 8	EDITION: FEBRUARY 2021	IDENT-No.: 00063.E	PAGE: 1 OF 2

Product description:

PRISMSTAR SX ink series are solvent based screen inks based on rainbow effect pigments for non-absorbent substrates.

PRISMSTAR rainbow effect inks can offer either a cost advantage over alternative technologies, esp. holographic foil, or a security feature for brand protection and product identification.

The ink series PRISMSTAR SX 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:

PRISMSTAR SX are solvent based screen printing inks. Ideal suitable for printing on film, e.g. self-adhesive labels and flexible packaging, especially when reverse printed. But also for surface applications.

For tinting and blending the PRISMSTAR SX-5301...4 series is best suitable. This products are based on higher pigment loading, which offers more flexibility.

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:

PRISMSTAR SX inks are based on non-leaving pigments. The split proof and the lamination properties are excellent as long as the adhesion to the substrate is given.

For highest demands on rub resistance use slip additives or wax.

Adhesion:

PRISMSTAR SX-Inks are recommended for OPP, pre-treated PET and PE. Pre-treated films usually give excellent adhesion.

Due to the large variety of films, individual tests prior to any commercial use are necessary.

Adhesion can be approved by adding *ULTRASTAR FAP-90 adhesion promoter*.

Additional product properties:

PRISMSTAR	SX-5321	SX-5324
Pigment content	appr. 3.8 %	appr. 2.0 %
Pigment size (D ₅₀)	appr. 10 µm	appr. 50 µm
Solid content	appr. 10.0 %	appr. 7.0 %
Binder	PVB	PVB
Solvents	Glycols	Glycols

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

Recommended printing parameters:

Screen configuration:

The optimum screen configuration depends on several factors. The theoretical ink volume of the screen is crucial for the coverage. Using a screen with a higher theoretical ink volume will increase coverage and effect. Using a screen with a too high theoretical ink volume will not give additional effect.

PRISMSTAR	SX-5321	SX-5324
Minimum fabric number [lines/cm]	150-34	77-48
Recommended fabric number [lines/cm]	100-40	54-64

Printing viscosity:

PRISMSTAR SX inks are delivered with print viscosity.

Dilution:


If necessary, the viscosity of the inks can be adjusted with low amounts of butyl glycol or propylene glycol.

Adding glycols will affect drying time.

Additive:

	Additive	Dose
Adhesion promoter	ULTRASTAR FAP-90	max. 1%

This additive is designed for individual modification of ink properties and should be added only shortly before printing. A negative effect on optical properties may occur. This should be checked before commercial use.

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Cleaning recommendations:

PRISMASTAR SX-inks can be cleaned by using butyl glycol or other glycols. Please refer to the safety data sheet and the safety guidelines given there.

Handling:

PRISMASTAR SX-versions are stable one-component inks with excellent rainbow effect.

The inks are developed to be printed as delivered.

Blending PRISMASTAR SX-versions with other components should only be done on ECKARTs 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.

Storage and transportation:

All PRISMASTAR 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 PRISMASTAR SX 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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