

Technical Product Information					
METALSTAR SuperEco 10 silver series					
Article-No:	Product name:		Article-No:	Product name:	
053152...M1	METALSTAR SuperEco 10 2004 Silver		053152..	METALSTAR SuperEco 10 2877 PANTONE® 877	
REVISION: 3		Edition: JUNE 2021		IDENT-No: 00299.E	
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Conventional sheetfed offset ink, mineral oil free¹

Product description:

METALSTAR SuperEco 10 silver series is sheet-fed offset ink formulated using vegetable ester technology (mineral oil free¹).

- With excellent printability
- Oxidative drying
- For press stability
- To meet today's demands (8-10 colour presses)
- Matching gloss and metallic effect of mineral oil based inks, e. g. METALSTAR 07 super gloss series

The oxidative drying ink series METALSTAR SuperEco 10 may release odour-generating by-products during the drying process and is neither low-migration nor low-odour. Due to our production processes for these products, 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 these products.

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

Application:

METALSTAR SuperEco 10 silver series is suitable for offset-sheetfed printing. The ink based on a leafing aluminum pigment.

Ideal suitable for printing on paper and carton (e.g. labels, folding carton).

As with all metallic inks, the substrate has an influence on the final result. This is true not only for optical properties as brilliance and hiding power, but also for printing properties such as adhesion and transfer.

Very absorbent or uneven substrates often affecting:

- The pigment orientation and consequently the brilliant effect.
- Transfer properties and adhesion, as essential parts of the binder might penetrate.

The METALSTAR SuperEco 10 2877 PANTONE®877 is fully licensed by PANTONE, Inc. and comply with colour specification. Variations in colour shade can be caused by different substrates, lacquers, laminates or printed colour densities.

In some cases, the use of primers to improve the substrate surface is advantageous.

Product properties:

Rub resistance:

METALSTAR SuperEco 10 silver products are based on leafing pigments and provides good brilliance. For applications with high demands on rub resistance, an OPV (oil-based or water-based over print varnish) is necessary. However, it will reduce the brilliance.

Intercoat adhesion and lamination properties:

The leafing properties of the metallic pigments can cause problems with all kind of finishing. The intercoat adhesion with oil-based and water-based lacquers is good. UV lacquers and laminates should be avoided.

Every surface finishing (lacquers, laminates, etc) will decrease the metallic brilliance.

In each respective case, individual tests are necessary because of the multiple factors influencing the result.

Additional product properties:

METALSTAR SuperEco	10 silver series
Pigment content	approx. 16,0 %
Pigment size (D ₅₀)	approx. 6 µm

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

Recommended printing parameters:

Printing speed:

The maximum printing speed depends on press conditions, substrate and chosen design. Recommended press speed is up to 15.000 sheets per hour.

Print Density:

Measurements need to be taken with a densitometer including polarisation filter. The given guiding values might change depending on press conditions, substrate, etc.

	Colour density (wet)	Filter
METALSTAR SuperEco 10 silver series	0.9 – 1.1	C


Fountain solution:

All METALSTAR inks can be used with most commercially available fountain solutions. The pH should be kept as neutral as possible to avoid drying problems and tarnishing during print run. Ideal would be pH: 5.0 – 5.5.

Avoid high pH levels as this might influence printability in a negative way.

Alcohol in damping units can be beneficial to metallic inks (max. 10%). METALSTAR inks print perfect with a wide range of alcohol-free fountain solutions. For best printing results, please contact your press chemical supplier.

¹ EuPIA Customer Information Note regarding the use of sheetfed offset inks/varnishes (setting and/or oxidative drying, or UV/EB curing) and water-based coatings for the manufacture of food packaging made from paper and board

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Printing plates:

Polymer layers of printing plates are sensitive to mechanical influences. Differences in the chemical nature of the polymers show significant variances in sensitivity, e. g. CTP plates are known to be more sensitive compared to usual plates.

All metallic inks are abrasive by nature and might reduce the plate life circle, depending on pigment grade, the kind of plate and the number of impressions.

We recommend baking the plate to prolong its life.

Dilution:

METALSTAR inks are press ready and should not be diluted. Max. 1-3% of mineral oil free diluent could be added on your own risk. Do not use mineral oil to reduce this inks.

Additives:

To improve rub resistance 2-4% wax paste could be added press side. This might have a negative effect on stability and optical properties and should be tested beforehand.

Cleaning recommendations:

METALSTAR inks can be easily cleaned by commercial available products. 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:

The METALSTAR SuperEco 10 silver series are stable one-component, press-ready inks with good metallic effects. However, blending of METALSTAR inks with other components should only be done on ECKART's recommendations in order to avoid a possible decrease in quality.

Used ink should not be refilled into the tin as emulsified fountain solution might react with the metallic pigments causing gelling, oxidation or even gassing.

Please refer to the Safety Data sheet of METALSTAR SuperEco 10 silver for further handling guidelines.

Storage and transportation:

All METALSTAR inks 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).

Keep the drums tightly shut and avoid unnecessary opening. Once opened – an anti-skinning agent could be used to avoid skinning.

Shelf life:

12 months

For further information or samples, please contact:

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