


Technical Product Information			
METALSTAR 07 silver series			
Article-No:	Product name:	Article-No:	Product name:
056274..	METALSTAR 07 0006 silver	056281..	METALSTAR PANTONE® 877 07 2877
050207..	METALSTAR 07 0020 gloss silver		
REVISION: 7		EDITION: SEPTEMBER 2021	
		IDENT-No: 00021.E	
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Conventional sheetfed offset ink, mineral oil based¹

Product description:

METALSTAR 07 silver inks are conventional, mineral oil based, wax containing, sheet-fed offset inks; Based on aluminium pigments for printing on paper and carton.

The oxidative drying ink series METALSTAR 07 silver 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 07 silver series is suitable for offset sheet-fed printing on paper and carton, e. g. labels and 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 PANTONE® 877 07 2877 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.

Product properties:

Rub resistance:

The METALSTAR 07 silver sheed-fed inks are based on leafing aluminium pigments and provide good brilliance. For applications with high demands on rub resistance on OPV (oil-based or water-based overprint varnish) is necessary. But this will reduce the brilliance.

Intercoat adhesion and lamination properties:

The leafing properties of the aluminium 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 are not ideal.

For lamination METALSTAR SuperEco 08 silver is recommended and UV overlacquering is suitable with METALSTAR 06 7000 silver (non-leafing type).

Individual tests are necessary prior to commercial use.

Chemical resistance:

Resistance to	METALSTAR 07 silver series
spirit	+
nitro	+
alkaline	-

Additional product properties:

METALSTAR	07 0006	07 0020	07 2877
Pigment content	ca. 16 %	ca. 16 %	ca. 16 %
Pigment size (D ₅₀)	ca. 7.0 µm	ca. 5.5 µm	ca. 5.5 µm

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


Recommended printing parameters:

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.

METALSTAR	Colour density (wet)	Filter
07 0006 silver	0.9 – 1.0	C
07 0020 gloss silver	1.0 – 1.1	C
PANTONE® 877 07 2877	1.0 – 1.1	C

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 speed:

The maximum printing speed depends on press conditions, substrate and chosen design. METALSTAR 07 0006 silver is based on coarse pigments and maximum press speed should be between 8.000 – 10.000 sheets per hour.

METALSTAR 07 0020 & PANTONE® 877 silver inks are based on finer aluminium pigments with excellent transfer properties; here press speeds up to 15.000 sheets per hour are achievable.

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 the run. Ideal would be pH: 5-5,5. Avoid high pH levels as this might influence printability in a negative way.

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

Printing plates:

The polymer layers of printing plates are very 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 07 silver inks are press ready and should not be diluted. Max. 2-5% mineral oil could be added on own risk. Caution must be used since there is a risk that properties like trapping will change significantly.

Additives:

Using additive is not recommended; if necessary 2-4% of wax paste could be added press side. This might have a negative effect on stability and optical properties.

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:

METALSTAR inks are stable, one-component, press ready inks with good metallic effects. However, blending 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 in 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 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 during storage and transportation should be avoided as these conditions might damage the product (oxidation/gassing or flocculation of binder/additive with low solubility).

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

Shelf life: 12 months

PANTONE® is a registered trademark of Pantone, Inc.

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