


Technical Product Information			
ROTOSTAR Aqua FP 10 Series			
Article-No.:	Product name:	Article-No.:	Product name:
025501..	ROTOSTAR Aqua FP 10-10411 RG	025498..	ROTOSTAR Aqua FP 10-10811 RG
025502..	ROTOSTAR Aqua FP 10-20411 RPG		
025503..	ROTOSTAR Aqua FP 10-30411 PG		
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Product description:

ROTOSTAR aqua FP 10 gold series are water borne flexo printing inks. The stabilised one-component inks based on leafing bronze pigments.

- Excellent balance of metallic brilliance and coverage
- Very good rub resistance
- Good anti-settling properties
- Excellent resolubility making it easy to print and easy to clean
- Amine free
- Glycol ether free
- Two different qualities / particle sizes are available
- Fine pigments (4µm) for excellent hiding power and good brilliance
- Coarser pigments (7,5µm) for a very good balance of metallic effect and coverage

The ink series ROTOSTAR aqua FP 10 is water based, but 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:

ROTOSTAR aqua FP 10 gold products are water borne flexo printing inks.

Ideal suitable for printing on both coated and uncoated papers, boards and film substrates, e.g. corrugated board, flexible packaging and coated folding carton for narrow web and wide web applications.

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

Product properties:

Rub resistance and lamination properties:

The products of ROTOSTAR aqua FP 10 gold series are based on leafing pigments and highly suitable for in-line over printing / varnishing.

ROTOSTAR aqua FP 10 series is wax-modified. The rub resistance can be increased through addition of polyethylene waxes.

However, overprinting of these inks is recommended if a resistance to moisture, alkali, soda or similar things like this, is necessary for the application.

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

Overprintability:

ROTOSTAR aqua FP 10 is based leafing pigments and can be over-varnished in-line to improve the rub resistance. To improve the intercoat adhesion between process colour and metallic ink, it might be useful to adjust the surface tension of the colour ink. In each respective case, special tests are necessary because of the multiple factors influencing the final result.

Adhesion:

Adhesion on coated paper qualities is usually good. The adhesion on film is dependent on the substrate. Final tests need to be taken before any commercial use.

Additional product properties:

ROTOSTAR aqua	FP 10-10411 rg FP 10-20411 rpg FP 10-30411 pg	FP 10-10801 rg
Pigment content	appr. 40.0 %	appr. 40.0 %
Pigment size (D₅₀)	appr. 4 µm	appr. 7,5 µm
Solid content	appr. 54 %	appr. 54 %
pH-Value	7.0 – 9.5	7.0 – 9.5
VOC	< 1 %	< 1 %
Brilliance	**	***
Hiding power	***	**

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

Recommended printing parameters:

For highly absorbent substrates and for printing fine details ROTOSTAR aqua FP 10 based on 4 µm pigments is recommended.


Very good brilliance in solid areas and for printing rough lines ROTOSTAR aqua FP 10 based on 7,5 µm pigments is recommended.

Anilox Configuration:

The final choice of the anilox depends on the details of the design. As higher the cell volume, as better is the achievable metallic effect.

	L/cm	L/inch	Volume cm ³ /m ²	Volume BCM/in ²
Solid area & broad lines:	60-100	150-250	8-12	5-8
Fine Lines	100-160	250-400	6-8	4-5

Printing speed:

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The maximum printing speed is dependent on press conditions, substrate and the chosen cell volume.
With sufficient heating power, printing speeds of 150 m/min and more should be possible.

Printing viscosity: 25 – 35 s (DIN 4-cup)

For individual applications, a viscosity out of this range might be useful.

Water might evaporate during the printing, which would lead to an increase of viscosity and this might impact the print quality in a negative way. Check viscosity during printing regularly and adjust, if necessary with water.

Dilution:

The inks should be diluted to print viscosity with water.
If the ink drying is too fast, retarders (e.g. propylene glycol – max. 10%) could be used for viscosity adjustments.

Additives:

	Additive	Dose
Medium	ROTOSTAR aqua ME 10-001 Medium	max. 50%

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.

Cleaning recommendations:

ROTOSTAR aqua inks can be easily cleaned with water. If water is not sufficient, usual available cleaners can be used. Also a 50/50 blend of water with alcohols (ethanol, isopropanol, etc.) and further add ons (e. g. wetting aids, alkaline cleaners, etc.) can be used.

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 ROTOSTAR aqua FP 10 series are stable one-component inks with excellent metallic effects and high brilliance. The inks can be printed as delivered or adjusted to print viscosity. However, blending of ROTOSTAR aqua inks with other components should only be done on ECKART's recommendations in order to avoid a possible decrease in quality.

Metallic inks tend to settle because of the high specific gravity of the metallic pigments. 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 check. No pigment settling should be left on the bottom of the container.

Please refer to the Safety Data sheet of ROTOSTAR aqua FP 10 for further handling guidelines.

Storage and transportation:

All ROTOSTAR aqua FP 10 series 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.

Shelf life: 6 months

Important: ECKART strongly recommends disposing of used ink after running on press, as the shelf life of this material can be greatly reduced due to various factors such as light, heat, contaminants etc.


ECKART cannot guarantee the shelf life of printing ink, which has been previously used or modified, nor for ink, which has been stored out with the conditions above.

For further information or samples, please contact:

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The data on this technical information sheet correspond with the current status of our knowledge and experience. The liability for the application and processing of our products lies with the buyer, and he is also responsible for observing any third party rights. We reserve the right to alter any product data as a result of technical progress or further developments in the manufacturing process.

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