


Technical Product Information			
ROTOSAFE Aqua Gold bronze Series			
Article-no.: 025492.. 025493.. 025497..	Product name: ROTOSAFE Aqua 6 309 RG ROTOSAFE Aqua 6 306 RP ROTOSAFE Aqua 6 303 PG	Article-no.: 025470.. 025471.. 025491..	Product name: ROTOSAFE Aqua 8 309 RG ROTOSAFE Aqua 8 306 RP ROTOSAFE Aqua 8 303 PG
REVISION: 0	EDITION: SEPTEMBER 2020	IDENT-NO.: 00526.E	PAGE 1 OF 2

Product description:

ROTOSAFE Aqua gold bronze series represents a portfolio of leafing bronze pigments in non-dusting powder form.

- Clean handling and easy dosage with dust free pellets.
- The non-dusting powder can be immediately processed into an ink (no dead time)
- High pigment content of 89% for flexibility in ink formulation.
- Consistent brilliance of formulated inks based on optimised leafing stability.
- Two different particle sizes for different applications.

These products have not been especially developed for the formulation of inks for the production of packaging for food, beverages and tobacco. Therefore, suitability for this application has to be tested before commercial use (e.g. via migration testing or risk analysis) and cannot be guaranteed by ECKART.

Application:

Products of ROTOSAFE Aqua gold bronze series are non-dust powders are suitable to formulate water-based gravure, flexo and screen-printing inks.

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:

Products of ROTOSAFE Aqua gold bronze series contain 89% metallic pigment, propylene glycol as solvent and additives for pigment stabilisation. They are compatible with water and all major water-based binder systems.

ECKART bronze pigments are based on an alloy of copper and zinc (brass). Different ratios lead to different colour shades. The alloys can react with chemicals or natural materials under a change of colour shade up to a complete decomposition of the metal pigments.

Prior testing of all materials (e. g. paper) involved in the whole production process, although not directly involved in the printing process, is necessary.

Rub resistance and lamination properties:

Products of ROTOSAFE Aqua gold bronze series based on leafing pigments. They have tendencies to reduce rub resistance as well as to reduce lamination properties. This tendency might be influenced further due to an inadequate binder system.

Additional product properties:

ROTOSAFE Aqua	6 30x	8 30x
Pigment content	appr. 89 %	appr. 89 %
Solid content	appr. 91 %	appr. 91 %
Solvent content	appr. 9 %	appr. 9 %
Solvent	propylene glycol	propylene glycol
Pigment size (D₅₀)	appr. 6 µm	appr. 8 µm

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

Optical properties:

ROTOSAFE Aqua	brilliance	opacity
6 30x	* *	* * *
8 30x	* * *	* *

Handling:

ROTOSAFE Aqua gold bronze products are optimised for high metallic effects. The non-dusting powder can be immediately processed into an ink (no dead time).

Slightly stir or homogenize ROTOSAFE Aqua gold bronze products in water. This is necessary to get an optimum wetting of the pigment surface and homogeny pigment dispersion.


After that, binder and other formula components can be stirred into the pigment dispersion by using adequate shear stress aggregates.

For the production of water-based inks we recommended in generally diapering under vacuum. Depending on the viscosity of the product, a disk dissolver can be used. Ideally, the ratio of disk to the inner binder diameter should be 1:2 or 1:3.

Avoid excessive shear stress or a disproportionate rise in temperature during production process. Excessive shear stress might lead to pigment damage and consequently to a loss in brilliance. Too little shear energy could also impact the optical effect due to poor pigment orientation.

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 ROTOSAFE Aqua Gold Bronze Series for further handling guidelines.

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Guiding formulations:

These suggested starting formulations are examples intended for general guidance only and do not represent the optimum result for any specific application.

Flexo printing ink rich gold:

ROTOSAFE Aqua 6 309 RG	43 %
Zinpol 146 ⁽¹⁾	44 %
Byk 024 ⁽²⁾	1 %
Byk Dynwett 800 ⁽²⁾	1 %
Byk Aquacer 531 ⁽²⁾	1 %
Wasser	10 %
Σ	100 %

Add ROTOSAFE Aqua 6 309 RG Bronze non-dusting powder to water. In contrast to pellets, the non-dusting powders need no waiting time but can be stirred immediately after adding. Add resin and disperse. Adjust viscosity to app. 20-25 s (DIN 4 cup).

Gravure printing ink rich pale gold:

ROTOSAFE Aqua 6 309 RG	25 %
ROTOSAFE Aqua 6 303 PG	14 %
Zinpol 146 ⁽¹⁾	35 %
Zinpol 132 ⁽¹⁾	13 %
Byk 024 ⁽²⁾	1 %
Byk Dynwett 800 ⁽²⁾	1 %
Byk Aquacer 531 ⁽²⁾	1 %
Wasser	10 %
Σ	100 %

Add ROTOSAFE Aqua 6 309 RG and 6 303 PG Bronze non-dusting powder to water. In contrast to pellets, the non-dusting powders need no waiting time but can be stirred immediately after adding. Add resin and disperse. Adjust viscosity to app. 16-22 s (DIN 4 cup).

Supply confirmation:

- (1) WorLee/Noveon
- (2) BYK-Chemie GmbH

Storage and transportation:

All ROTOSAFE Aqua types 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.

Shelf life:

12 months

For further information or samples, please contact:

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