


Technical Product Information			
ROTOSAFE ND 720 Gold bronze Series			
Article nr:  072968..	Product name:  720 801 Rich Gold	Article nr.:  072967..	Product name:  720 803 Pale Gold
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### Product description:

ROTOSAFE 720 ND gold bronze series represents a portfolio of leafing bronze pigments in a non-dusting powder form.

- Clean handling and easy dosage with dust free pellets.
- The new delivery form can be dissolved into ink formulation more easily when compared to pellets
- High pigment content of 90% for flexibility in ink formulation.
- Consistent brilliance of formulated inks based on optimised leafing stability.
- Two different particle size for different applications

These products are not been especially developed for the formulation of inks for the production of packaging for food, beverages and tobacco. 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:

ROTOSAFE 720 pigment pellets are suitable to formulate solvent-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:

ROTOSAFE ND 720 products contain 90% metallic pigment and 7,5% ketone resin (Laropal A81, BASF). For optimized wetting properties, this delivery form contains app. 2% of residual solvent (Isopropyl Acetate).

They are compatible with all major organic solvents (e.g. Ethyl Acetate, n-Propyl Acetate, Ethanol, Iso Propanol, etc.) and binder systems (e. G. Acrylics, PVB, Polyamides, Cellulose systems, etc.)

ECKART bronze pigments 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:

ROTOSAFE ND 720 series based on leafing pigments. They have tendencies to reduce rub resistance as well as to reduce lamination properties. This tendency might be influence further due to an inadequate binder system.

### Additional product properties:

ROTOSAFE ND	720 80x
Pigment content	appr. 90 %
Solid content	> 97,5 %
Solvent content	appr. 2 %
Pigment size (D <sub>50</sub> )	appr. 8 µm

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

### Handling:

ROTOSAFE ND 720 gold bronze pellets are optimise for high metallic effects. Slightly stir or homogenize ROTOSAFE ND 720 gold bronze pellets for several minutes in the solvent. This is necessary to get an optimum wetting of the pigment surface and a homogeny pigment dispersion.

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

Depending on the viscosity of the product, a butterfly mixer or a disk dissolver can be used. Ideally, the ratio of disk to the inner binder diameter should be 1:2.

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 influence 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 ND 720 Gold Bronze Series for further handling guidelines.

### Guiding formulations:

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

#### Gravure printing ink with Acrylic binder

ROTOSAFE ND 720 801 rich gold	30 %
Solvent (e. g. Isopropyl Acetate)	20 %

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Acrylic binder (~30% resin in Isopropyl Acetate)	50 %
Σ	100 %

Add ROTOSAFE ND 720 801 RG Bronze non-dusting powder to solvent. 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).

#### Flexo printing ink with PVB binder

ROTOSAFE 720 801	25 %
Ethanol	40 %
PVB binder (~25% resin in Ethanol)	35 %
Σ	100 %

Add ROTOSAFE 720 801 RG Bronze non-dusting powder to solvent. 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).

#### **Storage and transportation:**

All ROTOSAFE 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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