


<b>Technical Product Information</b>		
<b>ROTOVARIO UV FPG 950 305 nl Silver</b>		
<b>Article-No.:</b> 026311..	<b>Product Name:</b> ROTOVARIO UV FPG 950 305 nl Silver	

<b>REVISION:</b> 0	<b>EDITION:</b> AUG 2022	<b>IDENT-NO.:</b> 00548.E	<b>PAGE</b> 1 OF 2
--------------------	--------------------------	---------------------------	--------------------

## Non-leafling Low-Migration UV Aluminium paste for the formulation of UV Flexo and Offset printing inks

### Product description:

ROTOVARIO UV FPG 950 305 nl Silver contains stabilized, non-leafling Aluminium pigment pasted in acrylate monomer for the formulation of stable, radical curing, one-component UV Flexo and Offset printing inks for food packaging application.

- Ingredients are either low migration or meet the specific migration limits for evaluated substances under selected test conditions.
- Raw materials are selected with preference for high purity materials.
- No aliphatic and aromatic solvents or mineral oils (MOSH, MOAH) are used in the entire production process chain
- GMP compliant production (minimized risk of cross contamination).
- The formulation is specifically developed for food packaging application; under selected test conditions migration limits are undercut
- Due to the non-leafling properties and thus optimized pigment wetting, a highly improved tintability, better rub resistance and over-printability can be achieved. However, the embedding of the pigments results in lower brilliance in most color formulations compared to pigments with leafling properties.

ROTOVARIO UV FPG 950 305 nl silver paste is not suitable for formulating inks for direct food contact.

### Background information on migration into foodstuff:

In article 3 of the framework regulation (EC) 1935/2004 on materials and articles intended to come into contact with food, the following is required: Materials and articles must not release any substance into the packed food in concentrations that could endanger human health, change the food's organoleptic properties or its composition to a significant extent. Consequently, the global migration must not exceed 60 ppm. Any non-evaluated substance must either not exceed 10 ppb or 50 ppb in case it is non-genotoxic according to the EFSA guideline (EuPIA Guideline on Printing Inks applied to the non-food Contact Surface of Food Packaging Materials and Articles). For evaluated substances, the listed specific migration limit applies.

Whether these limits will be exceeded or not depends on several aspects as follows:

- type and thickness of substrate
- printing speed
- transferred ink volume
- lamp power

Since the aforementioned printing parameters are beyond the control of ECKART, the fulfillment of the requirements of regulation 1935/2004 when using ROTOSTAR UV FPG Silver has to be proven by the manufacturer of the food packaging material. However, according to our migration test results, migration limits are undercut under the applied printing and test conditions (please refer to the information given in the appendix).

Further information on potential migrants is to be found in the „Statement of Composition“, which is available on request. In all cases, the printed material / package has to be tested to ensure that the migration properties satisfy the packaging specification.

### Organoleptic properties (taint and odour):

In all cases, the printed material / package have to test to ensure that the organoleptic properties satisfy the packaging specification.

### Application:

ROTOVARIO UV FPG 950 305 nl silver paste is suitable for formulating UV curing Flexo and Offset printing inks on paper, board and foil for the manufacturing of food packaging (indirect contact).

As with all metallic inks the substrate has a big influence on the final result with respect to effect, cure and adhesion. Very absorbent or uneven substrates often cause poor pigment orientation resulting in inferior brilliance. In some cases, the use of primers for an improvement of the substrate surface is advantageous.

### Product properties:

With the very fine aluminium flakes ROTOVARIO UV FPG 950 305 nl Silver provides excellent transfers and coverage in finished UV curing inks.

### Rub resistance:


Due to the non-leafling characteristic of ROTOVARIO UV FPG 950 305 nl Silver, metallic UV silver inks with optimized rub resistance can be formulated.

The application of an overprint varnish can nevertheless be advantageous for abrasion resistance in most cases. Due to the better integration of the aluminum flakes compared to leafling pigment pastes, the impairment of the brilliance by the overprint varnish is significantly less pronounced.

### Technical data:

ROTOVARIO UV FPG	950 305 nl Silver
<b>Pigment content</b>	appr. 45,0 %
<b>Pigment size (D<sub>50</sub>)</b>	appr. 5 µm
<b>Process solvent residue</b>	< 0,1 %
<b>VOC</b>	< 0,1 %
<b>Acrylate monomer</b>	appr. 47,0 %

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

<b>Technical Product Information</b>		
<b>ROTOVARIO UV FPG 950 305 nl Silver</b>		
<b>Article-No.:</b> 026311..	<b>Product Name:</b> ROTOVARIO UV FPG 950 305 nl Silver	
<b>REVISION:</b> 0	<b>EDITION:</b> AUG 2022	<b>IDENT-NO.:</b> 00548.E
		<b>PAGE 2 OF 2</b>

**Recommended pigmenting rate:**

**For non-leafing UV or LED curing Flexo printing inks:**  
18-26% ROTOVARIO UV FPG 950 305 nl Silver

**For non-leafing UV or LED curing Offset Printing inks:**  
29-40% ROTOVARIO UV FPG 950 305 nl Silver

**Handling:**

ROTOVARIO UV FPG pastes are concentrates suitable for the formulation of UV curing Flexo and Offset printing inks. The pastes can be dispersed in a UV letdown by applying low shear forces.

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 finished inks can be easily stirred up and homogenised again. This should be done before viscosity will be checked.

When handling with UV-inks, please refer to the safety data sheet and the safety guidelines given there.

**Cleaning recommendations:**

ROTOVARIO UV FPGproducts can be cleaned by using conventional UV- cleaning agents. Also with esters or ester/alcohol mixtures the uncured inks can be removed easily from the cylinders. Please refer to the safety data sheet and the safety guidelines given there.

**Storage and transportation:**

ROTOVARIO UV FPG concentrates should be stored at temperatures between 20°C and 25°C. Direct sunlight should also be avoided. High temperatures can lead to gelling. Low temperatures can result in the separation of low soluble binder components. Opened containers should never be exposed to direct sunlight, since this will result in a preliminary polymerisation.

**Shelf life:** 6 months

Important: The shelf life of the material can be greatly reduced due to various factors such as direct sunlight, heat, contaminants etc. ECKART cannot guarantee the shelf life of products which have not been stored at the recommended conditions above.

For further information or samples, please contact:

ECKART GmbH  
Güntersthal 4  
91235 Hartenstein  
Germany

mail: [Info.eckart@altana.com](mailto:Info.eckart@altana.com)

[www.eckart.net](http://www.eckart.net)

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.