



Gecko® Frontal Alu

Mono solvent printing inks for flexible packaging

Description

A full colour range of pigmented nitrocellulose printing inks, designed for gravure printing applications on aluminium and plastic foils. This series is also available as a mono solvent ink series (Gecko Frontal Alu MS).

Applications

Flexible packaging for food and beverage products. The Gecko Frontal Alu Series is specific for aluminium but can also be used for surface printing on chem PET, acrylic-coated-BOPP, paper and BOPP. It can be used on BOPP for lamination. The lamination bond depends on the substrate quality, on the type of adhesive and the amount applied. Evaluate before printing that the surface treatment of PP is 38 dynes/cm. **When printed on PP (except in the case of Acrylic coated PP), all the inks of the series should be activated with our recommended Adhesion promoter in the amount of 5% (please consult technical team for the same).**

Use in surface printing

Gecko Frontal Alu can be used for the applications of external standard printing. When not protected by over print varnish we suggest to add our special Additive Wax Paste in the amount of 2-4% in order to assure greater scratch resistance. This additive increases the scratch and rub resistance but does not have to be added for applications intended for lamination. If the application requires high mechanical resistance or bears high blocking risk, the use of a dedicated Gecko Frontal ink series is strongly recommended. For applications where ink-to-ink contact may occur (such as in folded packages, or where packages are stacked) Gecko? Frontal Alu should not be used.

Print Process

Rotogravure for surface printing and lamination.

Properties

Ink adhesion	4
Light fastness (full tone)	3 -8 (*)
Heat resistance	160 – 180 °C

Rating scale (1 to 5 based on Gecko product range) 1 = worst value, 5 = best value. (*) for Light Fastness: Wool Scale 1 = worst value, 8 = best value

Note: All properties are just a guideline and must always be tested on the specific application.

Substrates: Annealed ALU, NC treat. ALU, Acrylic tr. PP, Chemical Treat. PET, BOPP, Paper

- **a preliminary adhesion and lamination test is strongly recommended**

Printing viscosity

Diluents	Gravure 13 – 18 s DIN 4		
Slow	n-Propyl acetate	100%	
Standard	Ethyl acetate Ethyl acetate/Ethanol	100%	8:2
Retarder	Methoxy propyl acetate		

Note: Gecko Frontal Alu inks are not suitable for thermal process like sterilization and pasteurisation. If it is desired to re-use the residual inks containing the Adhesion Promoter for a new print work, it is recommended to test this inks to verify the adhesion to the support and, where needed, to newly add the additive, in order to achieve an optimal adhesion.

Instructions for the use of printing inks for the production of primary food packaging

For information on the use of printing inks for the manufacture of food packaging please refer to the respective „**Statement of Composition**". This information is provided to allow the calculation of possible levels of migration of evaluated substances in a worst case situation.

Migration tests at hubergroup laboratories with printed samples made from commercially available OPP film (film thickness: 35 µ, printed weight: 6 g/m², with 95 % ethanol as the food simulant) and PE film (film thickness: 50 µ, printed weight: 6 g/m², with 95 % ethanol as the food simulant) showed no migration of substances above legal limits. Based on the results of these migration tests, we expect that the printed inks enable the final printed products to comply with the legal requirements for packaging for all kinds of foodstuff.

The manufacturer of the finished article and the filler have the legal responsibility to prove by appropriate migration testing that it is fit for its intended purpose.

In order to maintain low residual solvents concentration in the printed film, the printer must ensure sufficient drying of the inks, especially when retarders have been added. Residual solvent content must be regularly monitored.

The inks must not be used in the manufacture of packaging where the printed ink layer is intended to come into contact with foodstuff (direct food contact).

There are restrictions for the use of printing inks for applications where temperatures above 120 °C for extended periods of time are applied. For details, please see document "Food Packaging Inks for High Temperature Applications".

Health & Safety

The material safety data sheets contain all relevant information for the generation of appropriate internal plant instructions. The user is responsible for all local legislation requirements.

Ink Handling

Please refer to General Guidelines for handling inks for flexible packaging.

Storage

Store the packaged material in the original packaging at a temperature not below 5°C and not in direct contact with sunlight.

Contact addresses for advice and further information can be found under www.hubergroup.com
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