Technical Information

11C160 | Solvent-based Liquid Systems | Coatings, Lacquers, Varnishes, Primers

hubergroup print solutions

Gecko® Xperience
Textile - Wood - Leather Flexo OPV

Solvent based overprint varnish for flexible packaging.
70GL564850

Description

An ethanol/ethyl acetate, PU/NC-based varnish, designed to provide - depending on the pattern - a textile, wood or leather haptic effect.

Printing process

Flexographic printing, gravure printing (solvent blend optimized for flexo)

Applications

Surface printing.

Suitable for food and beverage packaging.

Substrates:	PE, BOPP, Coex OPP, CPP, Acrylic OPP*, chem PET, BOPA. * Applicability on acrylic coated PP has to be industrially tested properly in relation to potential blocking risk.
Minimum surface tension:	PE, BOPP, Coex OPP, CPP: 38 mN/m. BOPA: 48 mN/m (mN/m = dynes/cm)

Properties

Dry content 70GL564850	31% ± 2		
Adhesion	■■■■■■■■■ &	Water resistance	■■■■□□□□□□
Rub resistance	■■■■■■□□□□ $	Blocking print/back	■■■■■■■■□□
Scratch resistance	■■■■■■□□□□ $	Blocking print/print	■■■■■■□□□□
Heat-resistance	140° C	COF (stat./dyn.)	0.35/0.25

■ = positive rating point on a scale from zero to max. Ten points for highest value / best suitability

$ properties strongly depend on dry laydown, higher laydown leads to better performance
& In case of low adhesion up to five percent of adhesion promoter 70GH278345, added directly before printing, should be tried

Note: all technical properties are a guideline only and depend on final application. Due to the nature of this lacquer especially blocking results might differ from the given figures, depending on structure of the print and substrate used For details about exact test methods which are the basis for info about fastness properties given above please refer to the general test method overview.

Printing viscosity

Diluents	**Flexographic printing** 25 – 30 s DIN 4		**Gravure Printing** 18 – 22 s DIN 4	
Slow	Ethanol/n-Propanol	50:50	Ethyl Acetate/n-Propyl Acetate	80:20
Standard	Ethanol/n-Propanol	80:20	Ethyl Acetate	100
Fast				
Retarder	Ethoxy Propyl Acetate	5% max	Ethoxy Propyl Acetate	3% max

Notes

Final effect

In order to achieve an adequate textile / wood / leather haptic effect proper selection of the gravure cylinder or anilox roller should be made and the following parameters need to be monitored carefully:
Please follow the viscosity recommendations stated above. Even small variations in viscosity may have a significant influence on the haptic properties. Based on our experience, for flexographic printing, we recommend anilox configurations with 50-80 l/cm and volume 20-30 cm^3/m^2 (traditional). For Gravure printing, good results can be achieved using a cylinder with 40 lines/ 80 µ engraving (better if laser autotypic).
For reaching the requested haptic effect applying a quantity of up to 3 g/m^2 (solids) might be necessary. The exact quantity depends strongly on the printed pattern.
We strongly recommend a good assessment of the packaging process before industrial production. In case of high mechanical stress for the material (e.g. via heat seal bars or transportation) we encourage to leave the highly effected areas without textile / leather lacquer in order to prevent rub off.

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

For information on the use of printing inks, varnishes and additives 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.

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 100 °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.
Stir up well before use, especially if sedimentation has occured.

Storage Conditions

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