

Technical Information

11C159 | Solvent-based Liquid Systems | Coatings, Lacquers, Varnishes, Primers



PROVISIONAL TDS



Gecko[®] Xperience Textile - Wood OPV

Solvent based overprint varnish for flexible packaging.
XP70GL564848

Description

An ethanol/ethylacetate, PU/NC-based varnish, that is suited to evoke - depending on the pattern - a textile or wood 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 XP70GL564848	32% ± 2		
Adhesion	5 ^{&}	Water resistance	5
Rub resistance	3 [§]	Blocking print/back	4
Scratch resistance	3 [§]	Blocking print/print	3
Heat-resistance	140° C	COF (stat./dyn.)	0.35/0.25

Rating scale (1 to 5 based on Gecko product range) 1= worst value, 5= best value

§ properties strongly depend on dry laydown, higher laydown leads to better performance

& In cases of low adhesion up to 5 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 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 cm³/m² (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/m² (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 / wood 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.

Storage Conditions

Store the 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
This Technical information sheet reflects the current state of our knowledge. It is designed Due to the many variables in materials for printing, design construction, processing conditions and test criteria, this Technical Data Sheet can only be of an advisory nature. Our data reflect the latest state of our knowledge and are based on the characteristics established in the laboratory and on practical experience. Because there are many factors under the control of the user which may affect processing or application/use, it is necessary for the user to carry out appropriate tests to determine whether the product(s) is technically and safely suitable for the particular purpose, prior to use. **hubergroup** disclaims any liability for applications for which this ink series is not foreseen. No warranties of any kind, either expressed or implied, are made regarding the products here described. The English version is the master document, on which to refer for any translations.