

# Technical Information

11C169 | Solvent-based Liquid Systems | Coatings, Lacquers, Varnishes, Primers

PROVISIONAL TDS



## Gecko® Xperience Tenderness Flexo OPV

Solvent based overprint varnish for flexible packaging.  
XP70GL590420

### Description

An ethanol/ethylacetate, PU/NC-based varnish, that is designed to provide a soft-touch 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 XP70GL564720	26% ± 2		
Adhesion	■■■■■■■■■■	Water resistance	■■■■■■■■■■
Rub resistance	■■■■■■■■■■	Blocking print/back	■■■■■■■■■■
Scratch resistance	■■■■■■■■■■	Blocking print/print	■■■■■■■■■■
Heat-resistance	100°C	COF (stat./dyn.)	0,40/0,25

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

**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	<b>Flexographic printing</b> 20 – 25 s DIN 4		<b>Gravure Printing</b> 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	80:20
Fast				
Retarder	Ethoxy Propyl Acetate	5% max	Ethoxy Propyl Acetate	3% max

### Notes

#### Final effect

In order to achieve an adequate soft haptic effect an adequate selection of the gravure cylinder or anilox roller should be made and the following parameters need to be monitored carefully:

Viscosity: 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 l/cm and volume 20 cm<sup>3</sup>/m<sup>2</sup> (traditional).

The final requested haptic effect is normally achieved applying a quantity around 3 g/m<sup>2</sup> (solids). Depending on the applied quantity it might be necessary to print at lower speed.

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 transportation) we encourage to leave the highly effected areas without softness 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".

Contact addresses for advice and further information can be found under [www.hubergroup.com](http://www.hubergroup.com) 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.

## **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.

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