



HYDRO-LAC GA BARRIER COATING O2 70HX594802

Oxygen barrier lacquer for plastic films

Properties

Water-based low migration coating for rotogravure and flexographic printing

Suitable for the manufacturing of food packaging

HYDRO-LAC GA BARRIER COATING O2	70HX594802
Oxygen barrier effect	
Drying	

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

Property / Suitability	typical value ¹	Test condition / Remarks
Density	1.05 g/cm ²	± 0,05
pH	7.0 – 8.5	
Solids content	10 %	± 1 %
Viscosity (upon delivery)	25 – 40 s	cup drain time in ref. to DIN 53211, Ø 4 mm, 20°C
OTR (oxygen transmission rate)	< 10 cm ³ /(m ² .d)	primer; dry laydown barrier: 0.3 g/m ² ; substrate oPP; measured at 23°C, 0% r.h. ²

¹ The data provided are typical values, but do not represent a binding specification.

² OTR strongly depends on dry laydown and on r.h.; OTR will increase reversibly at r.h. above 50%

Storage/Handling

- store in unopened, original container under frost free conditions (15°C – 30°C)
- shelf life 12 months, if unopened; use quickly after opening original container
- check viscosity before use; if it has increased during storage, especially at low temperatures store the lacquer at elevated temperature (up to 35°C) for one or two days before use
- **stir well before use**; check homogeneity

Processing Advice

- recommended print viscosity: 20-25 s (4 mm) for flexo / 15-20 s (4 mm) for roto gravure
- dilution: water or water/isopropanol 8:2; add diluent slowly stirring constantly
- application of a primer before printing the lacquer will improve surface wetting and results in better and more consistent barrier properties; suitable primers are 70GX685696 or 70GX675309
- if the barrier lacquer is printed onto layers of coloured inks or white, barrier-properties may be compromised; in such cases primer below the barrier-lacquer will improve results
- printing of solvent-based inks onto the barrier needs the barrier to be completely dry
- excessive pumping without consumption on press must be avoided
- **do not mix with different coating products**

- **clean coating circuit thoroughly; avoid contamination of coating with rinse residues**

Suitable Substrates

Plastic films must be sufficiently pre-treated. When printing on plastic films or plastic-coated stocks, the substrate must have a surface tension of at least 38 N/m in order to ensure adequate ink adhesion/Scotch tape resistance. Due to the variety of materials, adhesion must be checked in advance.

Auxiliaries

- Thinning: water or water:isopropanol = 8:2 (premixed), ethanol instead of isopropanol possible
- Defoamer: 10HX716665 HYDRO-X GA Defoamer for Barrier Coating = max. 0,2% required quantity; improves additional the wetting; other defoamer or additives can degrade the barrier properties

General Information

In case potentially disruptive influences can occur, such as those originating from packaging contents or external influences (e.g. solvents, detergents, grease, moisture, etc.), the suitability of the coating needs to be double-checked through appropriate testing. For consistent print results, we recommend regular in-depth cleaning of the anilox rollers.

Notes about Coating Properties of the Printed Sheet

- the properties of the barrier do not arrive at their final values before complete drying of ink and coating

Information about Printing Food Packaging

Water-based coatings that are used in the manufacture of primary food packaging in which the packaged food has direct contact with the unprinted inside of the packaging must therefore be low-migration inks and have no adverse effect on either the odour or the taste of the packaged foodstuffs.

All raw materials used to manufacture this ink series are selected according to EuPIA Guideline and they are listed in the Swiss ordinance on materials and articles in contact with food (SR 817.023.21). HYDRO-LAC GA water-based coatings are formulated and manufactured in compliance with the „*Good Manufacturing Practices for the Production of Packaging inks formulated for use on the non-food contact surfaces of food packaging and articles intended to come into contact with food*“ issued by the European Printing Ink Association (EuPIA). All raw materials used are recorded throughout the entire production process and can be tracked right back.

Regarding to „*EuPIA Guideline on Printing Inks applied to non-food contact surface of food packaging materials and articles*“ the water-based coating HYDRO-LAC GA can be used to produce food packaging which are compliant to European regulation 1935/2004.

The water-based coating is “low migration” in accordance with the EuPIA/PIJITF definition.

The manufacturer of the packaging has to make a risk assessment and an appropriate quality control to ensure that any migration to the packed good above the legal limits is excluded.

Information required for the evaluation of finished food packaging can be found in the document entitled „*Statement of Composition of HYDRO-LAC GA water-based coatings used to manufacture food packaging made of paper and board*“

Range of applications

- For printing packaging made of polyolefin films (HDPE, OPP)
 - for dry, non-fatty foodstuffs
 - for dry, fatty foodstuffs
- We recommend use of special coatings for articles that are packaged, treated or used at elevated temperatures
- The coated surfaces must not be brought into direct contact with foodstuffs.

Labelling/Safety

See material safety data sheet

How supplied

- 25 L plastic canister
- 200 L plastic barrel
- 1000 L IBC