



Technical Information

Frimpeks Low Migration UV Curable Varnishes

Product Information

UV Curable Low Migration topcoats specially designed to work on Flexographic applications. The coatings have low migration properties due to their own migration photoinitiators and meticulously selected materials when used with low migration inks. Typically these coatings have outstanding flow and leveling properties as well as excellent curing capability features. They create an even, smooth surface with a gloss finish and high scuff resistance, with superior flexibility for scoring and folding.

Typical End Use

Packaging and Labels for applications requiring Low Migration properties

Typical Properties

Solvent Free, can be further processed immediately.

At a Glance

Flexibility	Very Good
Suitable for In-Line	Yes
Can be Applied via Pump	Yes
Suitable for Primary and Secondary Food Packaging	Yes

Technical Data

101811 UV COATINGS FLEXO GLOSS 12900-LM/FS
102022 UV COATINGS FLEXO GLOSS 12900-LM/FS/HS
101919 UV COATINGS FLEXO GLOSS 12900-LM/FS/INP

Viscosity @22°C Ford Cup	Reactivity with 120 W/cm ² Lamp	Gloss	Gluable/ Imprintable
70 - 80 sec	70mj/cm ²	90+ at 60°	No
85 - 95 sec	70mj/cm ²	90+ at 60°	No
85 - 95 sec	70mj/cm ²	90+ at 60°	Yes

Recommended Application

These coatings are designed to be applied through various application systems including flexo and roller coater unit offset water fountain on flexo presses.

To get the optimal gloss the recommended application is approx. 2-3 gr/m²

Processing

Mix well before use, making sure that equipment is clean in order to avoid cross-contamination from other materials

Equipment and Drying

This coatings are designed to be cured at with 1-120 Watt/cm² UV lamps. Greater press speed and curing capability may be achieved with additional UV lamps. Substrate may also have an effect on cure speed. Always test coating for compatibility with ink systems, substrates and for sufficient cure before general use.

Cleaning

Appliance and other equipment must be cleaned with Low Migration approved cleaning products.

Recommended Application

UV Products must be stored tightly closed, away from direct light. The optimal storage temperature is between 5°C and 35°C. UV Products are packaged leaving sufficient air space to prevent accidental polymerization of the product. NORMAL STORAGE DURATION: 1 year

Safety

UV Products are generally considered to be non-toxicological. However during handling and use the user should avoid inhalation of vapors as well as direct eye or skin contact. UV products can be an irritant to skin and eyes, wash immediately with soap and water if there is direct contact. Protective eyewear and latex gloves are recommended while using this product. Please consult the SDS for additional handling and safety information.

Packaging

This product is available in:
20 KG pails

Transportation

Not dangerous goods. Can be transported in freezing temperatures but product should be brought to room temperature prior to use.

Disclaimer:

The statements listed on this publication are according to our best knowledge. The statements do not exonerate the user from their own responsibility to determine that our products are suitable for their processes. They are intended to inform and advise and are subject to influence from the technical process. This edition of May 10, 2023 replaces all previous editions. With the present edition all older editions are null and void.



Technical Information

Consumer's care and safety are one of our first target and for this reason food should not be contaminated by any external substance. Within this frame we keep in mind that all the components of our inks must not migrate inside food-packaging. Our low migration ink and coating series have all law requirements to be used in printing for non-food contact surface.

Migration could happen in three different ways

- 1) Direct migration
- 2) Set-off migration due to paper stacking
- 3) Gaseous migration

Framework Regulation (EC) No 1935/2004 related to materials and articles intended to come into contact with foodstuffs provides the basis for the assurance of a high level of protection of human health and of consumers' interests in relation to food packaging, whether printed or not. The manufacturer of the final packaging has the responsibility for the compliance of the material and article with the legal requirements laid down in Article 3: Materials and articles must be manufactured in compliance with good manufacturing practice so that, under their normal or foreseeable conditions of use, they do not transfer their constituents to foodstuffs in quantities which could:

- a) endanger human health
- b) bring about an unacceptable change in the composition of the food
- c) bring about a deterioration in the organoleptic characteristics thereof

Marking

Marking according to EU legislations

Our inks are fully adhering to regulations such as Reach, 1272/2008 CLP, 453/2010 EU, ROHS III Directive 2015/863, and/or 528/2012 EU regulations. All material safety data sheets (MSDS) are available on request.

Declaration of Composition and Product Declaration

CEPE / EuPIA – Exclusion List

CEPE is the European Council of producers and importers of paints, printing inks and artists colours whereas EuPIA is the European Printing Ink Group of CEPE. The printing ink industry voluntarily came up with the Exclusion List for specific substances many years ago. The raw materials used by Frimpeks for the formulation of our printing inks/varnishes meet the guidelines of the CEPE / EuPIA Exclusion.

Heavy Metals

CONEG stands for Coalition of North-Eastern Governors in the USA. One of their legislations, adopted by 18 states as of 1998, requires reductions in the amount of the four heavy metals mercury, lead, cadmium, and hexavalent chromium in packaging and packaging components sold or distributed in their member states. For Frimpeks printing inks/varnishes the limits for heavy metals as listed in the CONEG-Regulation (USA) are met. The Euro Norm 71.3 refers to the max level of heavy metals in children's toys. For Frimpeks printing inks/varnishes, the limits for heavy metals as listed in the DIN EN 71-3:2019 are met. Heavy metals are no part of our formulations.

Hazardous Substances

Substances mentioned in the Directive 2015/863 known as RoHS III are not intentionally used in our formulations printing inks/lacquers

SVHC-substances (substances of very high concern)

In our products no substances are used which meet the criteria of SVHC-substances (substances of very high concern). SVHC-substances are substances which are classified as CMR 1 & 2, PBT (PBT pollutants are chemicals that are toxic, persist in the environment and bioaccumulate in food chains), vPvB (Substances that are potentially very persistent and very bioaccumulative) and endocrine disruptors (artificial hormones). The substances listed in the guide line 67/548/EEC (amended by the directive 2006/121/EC) and in the guide line 76/769/EEC are not part of the formulation of our printing inks/lacquers. Furthermore, we confirm that our printing inks/lacquers are in accordance with the EC regulation 1895/2005 (repeals the guide line 2002/16/EC). Enhanced Statement of composition (ESoC) is available on request to support with migration testing and compliance with Plastics Regulation (EU) No 10/2011, the Swiss Ordinance 817.023.21 Annex 1 or 6 or listed on the 'Provisional List of Additives used in Plastics' or listed as a food additive in Regulation (EC) No 1333/2008 and Regulation (EC) 1334/2008.

Quality Assurance

ISO 9001

The production site of Frimpeks is certified according to DIN EN ISO 9001:2015 and DIN EN ISO 14001:2005 (corresponds to EN ISO 14001 edition 2009).

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