



Technical Information

Frimpeks UV Curable Flexo Scratch-Off Inks

SCRATCH - OFF Silver and Black

Printing Details:

102738 UV FLEXO SCRATCH OFF SILVER 21710

1 unit : anilox volume 25 - 30 cm³ 16 -20 BCM (special gravure)

2 units : anilox volume 12 - 15 cm³ 8 -10 BCM (1st unit) anilox volume 10 - 12 cm³ 6 -8 BCM (2nd unit)

102739 UV FLEXO SCRATCH OFF BLACK 21711

anilox volume 8 - 10 cm³ 5 -7 BCM (maximum thickness to allow proper curing)

Technical Details:

UV flexo scratch-off coatings must be printed on an UV Release coating. Without this prior precaution, the Scratch-off ink will be impossible to remove or very difficult to scratch and stain/dirt the message. Using these UV coatings, the Scratch-offs can be printed even on matt coated and semi-matt coated papers. Prior tests are recommended when using porous substrates. Synthetic substrates suitably treated (Corona or Topcoat, 38 Dynes) also need an UV Release coating. Both bold (dark) and large shapes and letters will be difficult to hide. Depending on the design and pattern, the printed message should to be screened down significantly: we recommend at least a 30% screen (especially in the case of a single hit of Scratch-off). Black Scratch-off is usually printed in combination with Silver to improve the coverage. It is printed either as confusion panel on top of the metallic Scratch-off inks, between two layers of metallic Scratch-off(s) or direct onto the UV Release coating prior to the metallic Scratch-off(s).

Printing Details:

Three combined parameters influence the curing: the film thickness, the speed of the machine and the UV lamps power. The film thickness usually determines the UV lamps power and the speed of the machine.

When printing 1 hit:

A single UV lamp with 160 - 220 W/cm² (H-bulb type) should be able to cure the Scratch-off @ 35 - 40 m/min (120 -130 ft/min)

When printing 2 hits:

2 lamps with inter-deck curing 120 -160 W/cm² should be able to cure the Scratch-off @ 40 - 60 m/min (100 -150 ft/min)

Attention must be paid to "over-curing".

At a low coat weight, over-curing may result in a poor scratchability (weak or no release) because the Scratch-off is very hard and impenetrable.

The Scratch-off must remain flexible and scratchable without being excessively brittle and fragile.

Remark:

UV Release coating should be properly cured before over-printing with UV Scratch-offs in order to avoid the penetration of the Scratch-off into the surface of the varnish; this would definitely affect the scratchability of the system with little/poor or even no release effect.

Stability:

As traditional UV inks, UV curable Scratch-offs are susceptible to early polymerisation, especially when subjected to warm temperatures (above 35°C; 90°F). In order to optimise the shelf life and stability, it is important to maintain the ink under 25°C/75°F in the original sealed container and in a controlled environment.

Packaging:

Standard Packaging: 5 KG buckets

Technical Service:

Kindly note that we are ready at any time for competent technical application support on your site.

Please contact our technical staff for printing inks: uv@frimpeks.com

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 June 8, 2023 replaces all previous editions. With the present edition all older editions are null and void.

Frimpeks Kimya ve Etiket Sanayi Ticaret A.S.

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Technical Information

Marking:

Marking according to EU legislations:

Our inks are fully adhering to regulations such as Reach, 2020/878 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.

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.

Food Contact

Products indicated here are intended for use on secondary food packaging in indirect contact scenarios. The Packaging made with this inks and coating series is definitely not suitable for direct food contact. The general food packaging safety 'framework' Regulation (EC) No 1935/2004 of the European Parliament (Materials and articles intended to come into contact with food). This regulation refers specifically to food contact materials and articles rather than to inks and associated coatings. A more detailed secondary food contact declaration is available on request.

Quality Assurance:

ISO 9001

The production site of Frimpeks is certified according to DIN EN ISO 9001:2015

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