IPINKS REnewInk 5000

Ecological and sustainable low migration series
Specific for food packaging, non-absorbent and bipolythene paper substrates.

Consumer protection and the demand for increasingly sustainable products require that the food container does not contaminate the inside of the wrapper, preserving the food contents from any type of foreign substance.
Therefore all the components of the ink must be such as not to cause damage to the environment and not migrate within the support or fall within the limits imposed by law. This specific series is suitable for surface drying even on non-absorbent substrates such as paper and bi-polythene cardboard.
As a partner of many companies involved in printing on food media and as a promoter of innovative start-ups in the field of green technology, IPINKS srl has developed a series that respects ESG criteria based on renewable raw materials, completely dedicated to printing on food media food packaging, non-absorbent and bipolythene paper for low migration.

The transfer can take place in the following ways:

1) direct migration.
2) contact with the opposite side of the print support when stacking the paper, a phenomenon known as set-off migration.
3) transfer via gas phase.

Although European legislation does not specifically consider printing inks, there are nevertheless some legislative instruments that have consequences on materials and objects intended to come into contact with food products.
Regulation (EC) no. 1935/2004 prescribes in Article 3 that materials and objects must be produced in accordance with good manufacturing practices so that, under normal

and foreseeable conditions of use, they do not transfer components to food products in quantities such as to:

- constitute a danger to human health;
- lead to an unacceptable change in the composition of food products;
- lead to a deterioration of their organoleptic characteristics.

The Regulation also prescribes that:

- a written declaration is issued certifying that the inks comply with the standards applicable to them and that appropriate documentation is made available to demonstrate this compliance (Article 16);
- the traceability of materials and objects is guaranteed at all stages to facilitate control, the withdrawal of defective products, information to consumers and the attribution of responsibilities.

The Dielle BIPO 5800 series is formulated in such a way that none of its components migrate within the print media beyond the limits permitted by law.

Furthermore, the IPINKS REnewINK 5000 series for food packaging is low migration, mineral oil free, antioxidant free and dryer free, as well as formulated with renewable raw materials and compliant with current regulations on pigments.

Compliance

The 5000 Series complies with the following regulations:

1. Regulation (EC) no. 1935/2004
2. Regulation (EC) no. 2023/2006
3. Swiss Ordinance 817.023.21

Property

1. Suitable for printing on the non-food contact side
2. Low migration
3. Drying by setting and penetration
4. Suitable for printing according to ISO 12647-2 standard
5. Excellent performance in stack storage
6. Excellent printing stability

Available colours

IPINKS RENewInk 5000*					
		LIGHT	Alcool	Nitro	Alcali
Yellow	1GI-5000-0001	5	+	+	+
Magenta	1RS-5000-0001	5	+	+	-
Cyan	1BL-5000-0001	8	+	+	+
Black	1NE-5000-0001	8	+	+	+
		Light properties according to ISO 12040 standard: 1 (low) 8 (high)	Properties defined according to the ISO 2836 standard: +: Guaranteed resistance -: Resistance not guaranteed		

*The definition of color properties was obtained using standard printing procedures and parameters. For specific cases and in particular conditions, such as at very high densities, the classification of some properties may be different.

Technical Applications

The inks of the IPINKS REnewInk 5000 series are quality inks that do not present particular printing problems. Paint in line with a suitable water-based paint to facilitate rapid drying. Without the protective film the mechanical resistance properties cannot be achieved.

Printing instructions

Product	Offset printing ink for food packaging
Characteristics	The gloss level of the print is excellent. Very good slipperiness and rub resistance and good drying after water-based painting. Drying does not lead to a decrease in print density. The dot gain is good. The waiting time before printing is generally longer than standard inks, it depends on the quality of the individual substrate and specific conditions must be tested, also with our collaboration, before starting mass production.
Application	The IPINKS 5000 series is semi-fresh: it can be left in the inkwell for 16-24 hours at a temperature around 22°C. We recommend pre-heating the warehouse batch at around 20-25°C for 30', before the printing phase. Complete drying occurs after 8-12 hours.
Diluent	VEGETABLE SOLVENT
Cleaning	allow to dry well after cleaning to avoid contamination.
Storage	Keep away from heat sources, storage at 20-25°C is recommended.
Fount Solution	Add fountain solution slowly, especially when ink opacity is low. The concentration of isopropanol must be kept below 7% with a pH of approximately 5-5.5
Typical constants	Appearence : viscous liquid Viscosy : 250±10 Poise Specific Weight : 1.1±0.1 g/cm³ Rub-off : resistant to 30 passes

Particular Note:

The 5000 series complies with EUPIA guidelines for printing on food packaging media.

Never add drying agents to the ink or fountain solution.

When applying water-based paint, the cutting volume of the anilox roller should not be less than 13 cm3.

We recommend checking the conformity of the print support to be used for food packaging.

If the need arises to reduce the TACK of the ink, only use BIO 7128 tear-proof paste suitable for food support, contact our technical service for further information in this regard.

Heating in the oven should be avoided while heating the printed product in the microwave is not critical, however in general avoid heating the printed product above 200°C.

Migration and Odor Test:

Odor tests were performed through the following methods:

Method C of the UNI 10192 Standard (flask)
Taste transmission tests with reference to the UNI 10192 E standard method (Robinson test)

The migration tests were carried out according to the DIN EN 14338 standard on 180 g/m2 paper.
The test demonstrated that the substances subject to migration are a factor of 10 below the legal limit of 60ppm imposed according to EC regulation 10/2011 PIM (referring to the standard correlation 6dm2 of packaging for 1 kg of food).
This analysis document is available upon request.

For further information contact the Italian Printing Inks technical service:
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