



ITALIAN PRINTING INKS SRL, ZONA CONSORTILE ASI - SUD, MARCIANISE (CE)

Dielle BIO 8770

*The low migration and extremely low odour series
for food packaging from sustainable raw materials*

Sustainability is a nowadays target for all industrial productions. In particular inks and varnishes market has always been considered high pollution and high risk based market because of the use of mineral oil and not renewable raw materials. Our inks have been developed starting from vegetable based oils and they are more than 75% made from renewable substances in order to reach the target of sustainability of our productions. **No mineral oils are used and no food used oils are formulated in our inks.**

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 ink series Dielle BIO 8770 has all law requirements to be used in printing for non-food contact surface.

As partner of important printing producer for food packaging, we produced a mineral oil free series based on natural renewable raw materials, completely dedicated to print on food packaging support. This series is low-odour, low-migration and with no heavy metal based driers.

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



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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.*

Dielle BIO 8770 series is low-odour, low migration, mineral oil free, antioxidant free e driers free and produced up to 75% with natural renewable raw materials.

Conformities

The 8770 series comply with the regulations below

1. EC Regulation **n. 1935/2004**
2. EC Regulation **n. 2023/2006**
3. Swiss Ordinance **817.023.21**

Properties

1. The series comply with the requirements for printing inks for food packaging
2. Low migration and extremely low odour
3. Low selling
4. Suited for printing work corresponding to ISO 12647-2
5. Good performance in the stack
6. Ideally suited for gloss coated papers and board

Available colours

Dielle BIO 8770*		Light Fastness	Alcohol	Nitro	Alkali
Yellow	1GI-8770-0001	5	+	+	+
Magenta	1RS-8770-0001	5	+	+	-
Cyan	1BL-8770-0001	8	+	+	+
Black	1NE-8770-0001	8	+	+	+
		Light fastness based on standard ISO 12040: 1 (low) 8 (high)	Defined on standard ISO 2836: +: Resistance granted -: Resistance not granted		

*The assessment of the colour properties was made under standardised printing conditions. In individual cases, under special conditions, as in printing with very high ink densities, the classification of certain properties may be different

Technical applications

Dielle BIO 8770 is an high quality series with no particular printing problems. Inks penetrative setting, the absence of driers, antioxidant and additives makes this series to be overvarnished for facilitating drying. Overvarnishing makes this series rub resistant.

Printing instructions

Product	Offset printing ink for food packaging	
Characteristic	Extreme good press stability, excellent rub resistance, perfect dot gain. Very high press density. To be overvarnished to achieve a good drying. Drying doesn't cause lowering level of press density. Waiting time before printing is in general longer than other standard ink, depending on the quality of support and specific conditions could be tested. Please contact us for further technical collaboration in printing.	
Application	Dielle BIO 8770 series is semifresh: good properties at normal pressroom temperature for 16-24 hours.	
Diluent	Vegetable solvent	
Cleaning	keep drying to avoid contamination.	
Storage	Take away from heating sources	
Fount Solution	Fount solution should be added slowly in particular when ink has low covering effects.	
Typical physical constant	Aspect	: viscous liquid

	Viscosity	: 250±10 Poise
	Specific Pound	: 1.1±0.1 g/cm ³

Special notes:

Dielle BIO 8770 series comply with EUPIA guide lines on food packaging inks.

Never add driers to the inks or fountain solution

The nip volume of the anilox roller should not be less than 13 cm³.

We recommend testing the suitability of the substrate for the printing of food packaging

If there is a need for tack reduction, for example when printing on sensitive substrates, use only special REDUXPASTE BIO 7128

Heating of printed packaging in the oven has to be carefully considered due to the potential appearance of temperature peaks. In contrast, microwave heating of packaging without acceptor laminate is not-critical. Generally the heating of packaging to temperature exceeding 200°C must be avoided.

Odour and migration tests:

Odour tests have been performed as follow:

Method C UNI 10192

Method E UNI 10192 (Robinson test)

Migration tests have been executed based on standard DIN EN 14338 on 180 g/m² paper.

The test revealed that the migration of substances fell below the 60 ppm limit (EC 10/2011 PIM) by a factor of more than 10 (Referring EU convention whereupon 6dm² packaging surface correlates with 1 Kg food)

A copy of this report is available upon request.

For further informations please contact Technical Service:
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