



## MGA CONTACT

The sheet-fed special process series for direct food contact

Previous conventional MGA sheet-fed offset inks for printing food beverage and tobacco packaging were developed for printing on the side facing away from the food. These inks are not intended for printing on the inside of food packaging, where direct (physical) contact with the food cannot be ruled out.

The **MGA CONTACT** ink series allows the manufacture of packaging where the printed surface is intended or can be foreseen to come into direct contact with food.

### Basic requirements for food packaging

Materials in contact with food shall not, under normal or foreseeable conditions of use, transfer constituents to food in quantities which could

endanger human health,

bring about an unacceptable change in the composition of the food, or

bring about a deterioration in the organoleptic characteristics thereof.

**MGA CONTACT** is a range of sheet-fed offset inks for printing on surfaces that may come into direct contact with foodstuffs under the intended conditions of use.

The ink series is formulated and manufactured in accordance with the EuPIA "Guideline on Printing Inks applied to Food Contact Materials" and the EuPIA-GMP "Printing Inks for Food Contact Materials".

All ingredients used are evaluated for food contact in the EU and according to FDA criteria. The binders used in the manufacture of **MGA CONTACT** are based on special esters that are evaluated for food contact.

The ink series is recommended for the manufacture of food packaging that meets the requirements of Regulation (EC) No. 1935/2004. The manufacturer of the packaging must carry out a risk assessment and appropriate quality controls to ensure that migration above the legal limits onto the packaged food is excluded. Information required for the evaluation of the finished food packaging according to the Framework Regulation (EC) No. 1935/2004 and/or the Swiss Ordinance on Food Contact Materials and Articles 817.023.21 is provided in the form of the "Statement of Composition".

Indicative testing of printed model samples at an external institute using the test conditions provided for plastics (Regulation 10/2011) demonstrated that compliance with Regulation (EC) No. 1935/2004 is possible.

The printer/converter is responsible for the compliance of the final product. The compliance of the final product must be ensured by appropriate testing, since the migration behaviour of the inks on the substrate actually used may differ from that of the printed model sample, and the specific conditions of use of the final product must also be taken into account.

It goes without saying that the inks also meet the EU, Swiss and US requirements for inks for printing on the side facing away from the food.

## Conditions of use

**MGA CONTACT** shall be used in combination with a suitable water-based coating for printing food contact materials made of paper and board where direct contact of the printed surface with the following foods is possible:

- Dry and dry/fatty foods for which TENAX® is intended as a simulant according to Regulation (EU) No 10/2011;  
Storage time max. 2 years at room temperature
- Unpeeled and uncut fruit and vegetables;  
Storage time max. 2 years at room temperature

The ink system is designed and evaluated for an overall ink application of max. 1g/m<sup>2</sup>.

Protection with a water-based coating is mandatory

## Colours available

**MGA CONTACT** is available as process inks for 6-colour printing

MGA CONTACT		resistance acc. ISO 2836 / 12040				
		light WS	Ethanol	solvent mixture	alkali	drying
MGA CONTACT Yellow	<b>41DFC1000</b>	8	+	+	+	only ink setting
MGA CONTACT Orange	<b>41DFC1001</b>	7-8	+	+	+	only ink setting
MGA CONTACT Magenta	<b>42DFC1000</b>	7	+	+	+	only ink setting
MGA CONTACT Cyan	<b>43DFC1000</b>	7	+	+	+	only ink setting
MGA CONTACT Green	<b>44DFC1001</b>	7-8	+	+	+	only ink setting
MGA CONTACT Black	<b>49DFC1000</b>	8	+	+	+	only ink setting

## Properties

- Ink series for printing on food packaging made of paper and board on the food contact side.
- Not intended for contact with liquid food, due to poor resistance of possible substrates
- FCM inks (inks for the production of food contact materials) according to definition in the EuPIA Guideline
- Global migration < 10 mg/dm<sup>2</sup>
- Excellent values in the sensory evaluation of printed products in the Robinson test (EN 1230 T1 and T2)
- Suitable for the production of food packaging that complies with the requirements of Regulation (EC) No. 1935/2004 and also meets US FDA specifications
- Stable ink-water balance in the press
- Fast setting speed
- Since the inks do not dry by oxidation, substances which are organoleptically objectionable, such as short-chain aldehydes, are not generated. Printed products produced with **MGA CONTACT** therefore have low hexanal content.
- Mineral oil-free formulation

## Technical application

**MGA CONTACT** printing inks are characterised by excellent printing performance. Since they do not dry by oxidation, finishing with water-based coating is mandatory. Without coating, an adequate degree of rub resistance will not be obtained.

hubergroup offers suitable water-based coatings that have been specially developed to meet the requirements of food packaging production with **MGA CONTACT** printing inks. The same applies to fount concentrates and printing auxiliaries.

The processing of **MGA CONTACT** printing inks is comparable to conventional inks and is possible on all sheet-fed offset presses and all absorbent substrates. The local ink film thickness applied shall not exceed 2µm. Printing presses that are not used exclusively for printing with **MGA CONTACT** inks must be thoroughly cleaned before use so that contamination by ingredients of the previously used ink types is excluded. For this purpose, the GMP specifications of the relevant associations (e.g. ECMA, FFI) must be observed.

## Application instructions

### Fount solution feed and composition

The supply of the fount solution on the press shall be kept as low as possible – particularly when the level of ink application is low – in order to prevent excessive emulsification and poor coating quality associated with this.

The hubergroup has developed fount concentrates for use specifically with these products:

- **MGA COMBIFIX 8060** (with 8-10 vol% IPA)
- **MGA SUBSTIFIX 8380** (with 5-8 vol% IPA)
- **MGA SUBSTIFIX 8360** (with 0-5 vol% IPA)

### ACRYLAC MGA water-based overprint varnishes

The following water-based overprint varnishes have been developed specifically for finishing **MGA CONTACT** inks:

- Gloss coating: **ACRYLAC MGA Contact High Gloss 59DFC1100**
- Gloss coating with water/fat barrier properties  
**ACRYLAC-MGA SPECIFIC BARRIERE GLOSS 58MGA9003**

Other water-based overprint varnishes (semi mat, mat) on request

### Printing auxiliaries / Ink mixtures

**MGA CONTACT** inks are ready to print. Auxiliaries shall not be used, under no circumstances.

**MGA CONTACT** inks shall only be mixed with other **MGA CONTACT** inks. Driers or drying accelerators shall not be added, under no circumstances, because this would lead to the generation of strong-smelling decomposition products.

### Post-print finishing

The waiting time before the printed sheets can be further processed is similar to that for conventional inks. It depends on the quality of the substrate. Tests should be carried out in specific cases prior to starting a production run.

### Roller treatment / Wash-up

Press rollers shall never be sprayed with e.g. ANTISKIN 10T1200 or INKFIT 10T3303. After washing the rollers, leave them to dry well.