



MGA[®] NATURA

The special process series for organoleptically neutral print products - low migration

Sheet-fed offset inks for printing food and consumables packages shall not have any adverse effect on either the odour or the taste of the package contents. The development of a new, special vehicle and the use of specially selected solvents, raw materials and production methods has enabled us to create low migration, low-odour¹ sheet-fed offset inks.

Legislators – and, as a consequence, many manufacturers for branded goods – are increasingly turning their attention to printing inks and coatings for manufacturing food packaging, in particular with respect to their safe usage and application and the chemical substances employed in them. The **huber**group has stood up this challenge and clearly demonstrated how aware it is of its responsibilities from the very beginning, and is making every effort to ensure its products comply with the legal requirements by utilising the latest technological advances.

The **MGA NATURA** ink series is a mineral oil-free ink system.

Fastnesses

MGA NATURA		Echtheiten nach ISO 2836 / 12040				
		Light WS	Alcohol	Solvent mixture	Alkali	Drying/Setting
MGA NATURA Yellow	41MGA5150	5	+	+	+	by setting only
MGA NATURA Magenta	42MGA5150	5	+	+	-	by setting only
MGA NATURA Cyan	43MGA5150	8	+	+	+	by setting only
MGA NATURA Black	49MGA5150	8	+	+	+	by setting only

Naturally, in addition to the process colours, we can also formulate any shade you would like, including all corporate and spot colours, on the basis of **MGA NATURA**.

Special properties

- Ink series for printing the non-food contact surface for food packaging made of paper and board
- Low migration according EuPIA/PIJITF definition
- Overall migration < 10 mg/dm²
- Organoleptic assessment of printed products produces excellent results („Robinson test“ EN 1230 Part 1 and Part 2)
- For articles that were filled, treated or stored for a longer time at higher temperatures (more than 70 °C), we recommend special inks from our MGA CORONA series.
- MGA NATURA inks can be used in a similar way to conventional inks and are suitable for use in all sheet-fed offset presses and on all absorbent stocks. The applied single film thickness should not exceed 2 g/m²
- Stable ink/water balance in the press

¹ The term „low-odour“ refers to prints that have been made with these inks

- Fast setting speed
- These inks dry solely through setting and not by oxidation. Due to their drying mechanism, prints made with MGA NATURA inks do not offer very good rub resistance. For a sufficient rub resistance we recommend inline coating with organoleptically neutral, water-based coating
- The fact that the inks do not dry by oxidation means no substances develop that are organoleptically objectionable like short-chain aldehydes. Printed products made using MGA NATURA inks therefore also have a low hexanal content

Application instructions

Fount solution delivery and composition

The **hubergroup** has developed specific MGA fount concentrates for use with MGA NATURA inks:

- **SUBSTIFIX MGA 8360** (for printing without IPA)
 - **COMBIFIX MGA 8060** (for printing with IPA)
- The isopropanol concentration in the fount solution shall not exceed 10 % at a pH of 5.0 - 5.4 when using COMBIFIX MGA.

Roller treatment

Due to the possible negative effect on printed packages with respect to odour and taste, the rollers must not be sprayed with ANTISKIN or INKFIT. After washing the rollers, leave them to dry well.

ACRYLAC MGA water-based overprint varnishes

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

- Glossy and rub-resistant coating for single-sided coating: **ACRYLAC MGA Gloss S 58MGA1300**
- Wet-blocking-resistant and rub-resistant coating: **ACRYLAC MGA Gloss 58MGA1000**

If required, other ACRYLAC MGA types with additional special properties can be supplied.

Storage/Converting

- Max. temperature in the stack 35 °C
- Drying time before converting should be at least 48 hours

Printing auxiliaries / Ink mixtures

To reduce ink tack, use only **Print oil 10MGA1405N** or **Paste reducer 10MGA9998N**. Standard printing oils, paste reducers or the like shall not be used, under no circumstances.

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

Basic requirements for food packaging

Food packages shall not transfer any substances to the goods packaged inside them that

- endanger human health,
- influence the odour or taste of the packed food,
- influence the composition or appearance of the packed food.

Sheet-fed offset inks that are used in the manufacture of food packaging in which the packaged food has direct contact with the unprinted inside of the packaging must therefore be low-migration inks and have no adverse effect on either the odour or the taste of the packaged foodstuffs.

MGA NATURA is a low migration and low-odour offset ink series. These inks are mineral oil free formulated and do not contain any drier to support drying by oxidation.

All raw material used to manufacture this ink series are selected according to EuPIA Guideline. All ingredients are listed in the annex of the Swiss ordinance on materials and articles in contact with food (SR 817.023.21). Binders of MGA NATURA are based on special esters which are approved for direct contact with food stuff. The inks are formulated and manufactured in compliance with EuPIA GMP. This ink series is recommended to produce food packaging which are compliant to European regulation 1935/2004.

The manufacturer of the packaging has to make a risk assessment and an appropriate quality control to ensure that any migration to the packed good above the legal limits is excluded. Information on substances used or known to be present with the potential to migrate, including possible restrictions, is provided in the respective "Statement of Composition", to allow members of the packaging chain to assess compliance of the printed packaging with the Framework Regulation (EC) No. 1935/2004 and/or Swiss Ordinance 817.023.21.

Classification

According to the Ordinance on Hazardous Substances: none

According to the Regulation of Flammable Liquids: none

Material Safety Data Sheet available on request. Please refer to the contact of your local supplier.

How supplied

2.5-kg vacuum-sealed cans

Water-based coatings

25-kg plastic canister
600-kg returnable IBC
1000-kg returnable IBC

Fount concentrate

10-kg plastic canister
220-kg drum