

UV Flexo Low-M

For absorbing and non-absorbing printing substrates



The **UV Flexo Low-M** process series are an universal flexo process inks for **outer** food packaging printing with **indirect contact** and stands out for its excellent printing properties and shows outstanding adhesion on a big range of non-absorbing printing substrates such as foil, plastic (Polypropylene, PVC, Polyester and metallized papers). Other fields of application of this series are coated and uncoated boards and papers. Due to the variety of materials prior tests of printability and properties are recommended as well as in-line corona pre-treatment for films. A surface tension of approx. 40 mN/m is suggested.

Properties:

- Very high gloss
- Good adhesion
- Very low odour

		Light	Transp.	Spirit	Nitro	Alkali
UV Flexo Low-M	Yellow	5	+	+	+	+
UV Flexo Low-M	Magenta	5	+	+	+	-
UV Flexo Low-M	Cyan	8	+	+	+	+
UV Flexo Low-M	Black	8	-	+	+	+
UV Flexo Low-M	Yellow Lightfast	7	+	+	+	+
UV Flexo Low-M	Magenta Lightfast	7	+	+	+	+

+ Properties given, - Properties not given

Important note of usage:

Stir the inks well before use.

Good curing depends on ink application, substrate, number and type of emitters used, their distance to the print and printing speed. For standard ink application we recommend a lamp output of 160 - 200 W/cm.

All types of anilox rollers can be used when using **UV Flexo Low-M** printing inks.

Depending on the printed image, screen resolutions of 60 to 400 lines/cm and even more can be printed.

Due to a high pigmentation of the inks, the brilliance is preserved, even when printing with very high screen resolutions. Depending on the shade, the optimum ink application is between 0,8 and 2,0 g/m².

The table below shows the recommendation for cell volumes for different print subjects.

Print subject	Ink application g/m ²	Cell volume ml/m ²
Process printing	0,9 - 1,4	3,0 - 4,5
Screen - fine	0,9 - 1,0	2,8 - 3,5
Screen - coarse	1,2 - 1,5	3,0 - 6,0
Lines - fine	1,0 - 1,5	2,8 - 4,0
Lines - coarse	1,5 - 2,0	3,5 - 6,0
Areas	1,5 - 2,5	4,0 - 8,0

Technical data:

Rotary viscosity (standards at 25°C, shear rate 160/s):

- Process Inks: 0.4 - 1 Pa*s
- Basic inks: 0.4 - 1 Pa*s

	Light WS acc. DIN 16525	Transparent / Opaque	Spirit	Solvents	Alkali
UV Flexo Low-M PANTONE® Yellow	5	T	+	+	+
UV Flexo Low-M PANTONE® Yellow 012	5	T	+	+	+
UV Flexo Low-M PANTONE® Orange 021	3	T	+	+	+
UV Flexo Low-M Orange 021 (odour)	3	T	+	+	+
UV Flexo Low-M PANTONE® Warm Red	3	T	+	+	-
UV Flexo Low-M PANTONE® Red 032	6	T	+	-	+
UV Flexo Low-M PANTONE® Rubine Red	5	T	+	+	-
UV Flexo Low-M PANTONE® Rhodamine Red 1)	7	T	+	+	+
UV Flexo Low-M PANTONE® Purple 1)	7	T	+	+	+
UV Flexo Low-M PANTONE® Violet 1)	7	T	+	+	+
UV Flexo Low-M PANTONE® Blue 072	7	T	+	+	+
UV Flexo Low-M PANTONE® Reflex Blue 1)	7	T	+	+	+
UV Flexo Low-M PANTONE® Process Blue	8	T	+	+	+
UV Flexo Low-M PANTONE® Green	8	T	+	+	+
UV Flexo Low-M Mixing Black	8	O	+	+	+
UV Flexo Low-M Transparent White					
UV Flexo Low-M Opaque White	8	O	+	+	+
UV Flexo Low-M Ultra Opaque White	8	O	+	+	+

1) Due to the necessary resistances to various filling materials, not all shades can be achieved in the accustomed quality.

Further processing

After complete curing, the print can be further processed immediately.

The **UV Flexo Low-M** inks are UV-varnishable caused by their chosen fastnesses. They are also laminatable and suitable for thermal transfer printing.

The sealing strength of the inks on PE is at least 170 °C for 0.5 sat 3 bar (plane jaw, one-side tempered).

Field of application

The inks mentioned above are recommended for the production of food- and pharmaceutical packaging.

The **UV Flexo Low-M** inks are formulated to minimise potential migration.

Migration can occur through the substrate or by set-off.

During set-off migration the ink components shift from the printed outer side to the unprinted food-contact surface in the stack or the reel.

Note that each migration is also dependent on the processing conditions and sufficient barrier properties of the substrate.

The **UV Flexo Low-M** inks are only suitable for **indirect** food contact.

The **UV Flexo Low-M** inks are generally suitable for the packaging of following food substances:

- All kind of odour- and taste-sensitive food
- Solid, paste-like or liquid, greasy or aqueous food

Excluded applications

The inks mentioned above are **not permitted for direct** food contact.

The use of these inks in food packaging with special requirements e.g. for microwave, baking oven or baby food, must be tested prior to application.

Packaging size:

- 5 kg plastic bucket
- 200 kg barrel
- 1000 kg container

Storage:

UV inks have a limited shelf life. In case of appropriate storage at 20 °c and protected from direct sunlight, we guarantee a shelf life of 6 months.

This technical instruction sheet is designed for your information and reference. It is based on and conforms to our current knowledge. However as actual application is affected by many factors over which we have no control, we are not liable for printing failures.

Disclaimer

The information contained herein are based upon experiences, laboratory results and data believed to be up-to-date and correct at the time of writing. Our products are subjects to a constant improvement process. Therefore, we reserve the right to adjust the composition of the inks as well as the contents of our technical data sheets.

All products mentioned above are produced in accordance with „Good Manufacturing Process (GMP) printing inks for food contact materials“ of EuPIA.

These inks are produced with low migration potential and only suitable for indirect food contact.

Because the application and conditions of use are beyond our control, the information provided does not represent any guarantee or warranty of any kind.

Product behaviour and suitability for the application of customer depend on the special conditions of use and the manufacturing process.

We recommend that customers check by themselves that each product meets their requirements in all aspects before printing a run. We do not give general pledge of suitability of this products.

The manufacturer of the finished product and packers bear the legal responsibility that the food packaging is suitable for its intended use.

We suggest a validation of the printed food packaging by a certified institute and indicate that not just the materials used, but also the manufacturing process influence the conformity of the packaging.