

UV-Flexo Plus Metallics Low-M

UV-Flexo printing inks Low-M are radically curing inks, especially developed for packaging printing. They are specially low migration and low odour and 100 % curing systems with low viscosity, not containing neither solvents nor water. The curing of the inks starts only when being exposed to UV light. Consequently, they do not dry in the ink unit, on the anilox roller or the printing block during machine stops.

Quality features

- Specially low migration
- Specially low odour
- Contains high-molecular initiators

Substrates

Plastic films: PE, PP, PVC, OPP, aluminium films.
Papers (if necessary with pre-treatment).

Due to the variety of printing substrates used, preliminary adhesion tests should be made. Regarding the evaluation of the substrate as a migration barrier please check with AtéCé.

| | Article code | Light | Alcohol | Solvent | Alkali | Opacity |
|----------------|--------------|-------|---------|---------|--------|---------|
| Rich Gold | 04FUT0701.5 | 5 | + | + | - | 0 |
| Pale Gold | 04FUT0702.5 | 5 | + | + | - | 0 |
| Rich Pale Gold | 04FUT0703.5 | 5 | + | + | - | 0 |
| Silver | 04FUT0710.5 | 8 | + | + | - | 0 |

+ Properties given, - Properties not given

Important note of usage

A metallic effect can be only reached in combination with a metallized surface for example like aluminium.

Ink application

0,8 – 2,0 g/m² depending upon the shade.

Application

The UV-Flexo printing inks Low-M are radically curing and are recommended for manufacturing food- or pharmaceutical packagings. They are formulated under consideration of their application in a way that a potential migration through the substrate as well as a migration in the roll or stack by set-off from the printed exterior side to the side facing the food is as minimal as possible. Attention should be paid to the fact that migration and migration by proof are also depending on the conditions of process and on the sufficient barrier properties of the substrate. Low odour and migration properties were respected during the formulation. These inks are only suitable for indirect food contact.

The inks are in general suitable for packagings for the following food:

- Smell- and taste-sensitive food of any kind
- Solid, paste-like or liquid, greasy or aqueous food

Restricted application

The UV-Flexo printing inks series Low-M are not permitted for direct food contact. Furthermore the application for food packagings which are destined for microwave or oven application is only recommended if there are existing analysis which are specially aligned with this application field.

Production and composition

The above indicated products are manufactured in accordance with the “Good practice of production of printing inks for packaging to be used on the surface which is averted from the food or object (GMP)” of EuPIA. The inks are formulated with polymere photoinitiators and/or initiators with low migration potential. Binding agents and monomers are chosen in a way that they are totally included in the ink layer after curing.

Curing

The curing speed depends on the ink layer thickness, colour shade, number and type of UV lamps used and the printing substrate. We recommend a minimum uv dose of 25 mJ/cm².

Anilox rollers

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

Adherence to directives

The manufacturer of the finished end-product and the packer have the legal responsibility regarding the suitability of the food packaging for the destined application.

Storage

Inks should be stored at 15-20°C. UV inks should not be exposed to direct light, especially sunlight.

Note

We recommend the inspection of the manufactured food packaging by an approved institute and we point out that not only the used material but also the production process have an influence on the conformity of a packaging.

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.