

# **TECHNICAL DATA SHEET**

Version: July 2019

## **UV PACK LM**

The inks of UV PACK LM SERIES show very good adhesion on all possible closed substrates with low odour and low migration properties.

#### REFERENCES

|                    |            | RESISTANCES |         |       |        |  |  |
|--------------------|------------|-------------|---------|-------|--------|--|--|
| UV PACK SERIES     | CODE       | LIGHT (IWS) | ALCOHOL | NITRO | ALKALI |  |  |
| UV PACK LM YELLOW  | C000000322 | 5           | +       | +     | +      |  |  |
| UV PACK LM MAGENTA | C00000323  | 5           | +       | +     | -      |  |  |
| UV PACK LM CYAN    | C00000122  | 8           | +       | +     | +      |  |  |
| UV PACK LM BLACK   | C000000123 | 8           | +       | +     | +      |  |  |

#### **PROPERTIES**

- Good adhesion.
- Excellent film lamination properties.
- Good 'post-curing' rate.
- Good gloss, high colour strength.
- Good lithographic properties.
- Very good flexibility.
- The UV PACK LM inks contain carefully selected raw materials to minimise the risk of skin irritation and causes as little odour as possible. It is in compliance with the EuPIA exclusion policy.
- Low odour and low migration properties.
- Optimal resistance properties will be obtained 24 hours after printing.
- Formulated without benzophenone.
- Formulated without ITX.

#### PRINTING BEHAVIOR

- Application area: letterpress, wet offset.
- UV curing speed: 300 m/min or 9000 sheets/hour (with 3 lamps of 120 W/cm).

(the reactivity is also influenced by the substrate, the condition of the lamps, the condition and adjustment of the reflectors, the thickness of the ink layer, colour,

- Suitable substrates (Surface tension see "Recommended treatment levels"):
  - High gloss paper and board.
  - Hard and soft vinyls (corona treated).
  - Pre-treated plastic films (polyester, acetate)
  - Pre-treated PP films (e.g. for IML labels)

Preliminary adhesion tests are recommended.

### Recommended treatment levels (dynes/cm):

|             |      | PE | PP | PVC | PET | PS | PVDC | PU | ABS | PTFE | SILICONE |
|-------------|------|----|----|-----|-----|----|------|----|-----|------|----------|
| LITHO       | MIN: | 40 | 40 | 36  | 44  | 42 | 42   | 38 | 42  | 38   | 38       |
|             | MAX: | 50 | 50 | 52  | 56  | 50 | 52   | 52 | 52  | 52   | 52       |
| LETTERPRESS | MIN: | 42 | 40 | 40  | 46  | 42 | 42   | 42 | 45  | 42   | 40       |
|             | MAX: | 54 | 54 | 52  | 60  | 58 | 54   | 56 | 52  | 60   | 56       |

## REMARKS

- To improve scuff resistance of non-laminated surfaces, UV-overprint varnishing is recommended.
- Cleaning: it is not necessary to wash the press immediately after printing. The UV PACK LM inks will not cure in the press and is therefore ready to use for the next day's printing. However, the ink may start to cure in the press if sunlight or UV-light from the bulbs / UV-lamp is allowed to shine on the
- Shelf life: the UV PACK LM inks have a 12-month shelf life guarantee. This guarantee covers 12 months from the date of manufacture (which is mentioned on the label). In order to give this guarantee, certain recommendations must be followed: the UV PACK LM inks should be kept on stock at temperatures between 15 - 20°C and they should not be exposed to direct sunlight or heat. If possible, store the ink in a dark room
- Rollers: the following roller material is recommended: EPDM (Ethylene-Propylene-Diene-Monomers). EPDM rollers show excellent performance with
- Nitril rubber: nitril rubber rollers show minimal swelling with UV-inks and conventional inks. Solvents such as glycol and acetates do have a tendency to make this rubber swell. Nitril rubber is recommended when using two component metallic inks.

#### **PACKAGING**

- 1 kg cans
- 3 kg cans







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#### **ADDITIVES**

- UV Silicone additive
- UV Anti-blocking additive
- Wash-up solution
  - For manual washing
  - For automatic washing
  - Labelling and reg. Free
- Photoinitiator
- Thinner

#### OTHER INFO

These inks and/or coatings (this ink and/or coating) are (is) only suitable for use on the non-food contact side of food packaging, provided they are applied using the relevant Good Manufacturing Practices (GMP) and according to the guidelines in this Technical Data Sheet.

The printer, converter and packer/filler each have a responsibility to ensure that the finished – printed - product is fit for the intended purpose(s) and that the ink and coating components do not migrate into the food at levels that exceed legal, regulatory and industry defined requirements.



