

TECHNISCHE INFORMATION
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SIEGWERK

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Product name: **SICURA Flex UV Glanzlack 85-601853-6** (39-9P-0178)
SICURA Flex UV Mattlack 85-601851-0 (39-9P-0115)

Product description: With UV light Flexo lacquering units after the **radical mechanism** hardening suitable for a large section by plastic materials and other printing carriers, for all in LINE types of UV Flexo **label or packing printing machines**.

Printing process: Flexo varnishing unit

Properties:

- Odour, off flavour and migration risk particularly small
- Excellent water and product stabilities
- low shrinking
- Excellent heat-sealing resistance
- With suitable printing carrier and cross linking agent pasteurization- and sterilization-resistance
- free from chlorine

Substrates: Adhesion, resistance to scratching and scuffing, water resistance (wet scratch and wet scuff resistance), heat-sealing resistance and excellent resistances to fats, acid or alkaline products, cosmetics, lotions, shampoos, alcohol, cleaning agents and solvents are normally obtained on the following substrates:

- **Varnished/primered polyethylenes** (material for self adhesive labels)
- **Varnished/primered polyethylenes** (material for self adhesive labels)
- **PVC-lacquered polypropylenes** (material for self adhesive labels)
- **Selected treated/primered polyesters**
- **Selected lacquered/primered aluminum-metallized foils and cover foils** (e.g. with selected polyester, nitro or PVC-primer)
- **Uncoated papers and cardboards with low porosity**
- **Polyethylene "papers" (e.g. Tyvek, Syntape)**

Other substrates after technical evaluation.

Special applications:

- **Thermo-papers:**
 - Due to darkening of the thermo-coating this varnish is **not** suitable for **economic thermo-papers**.
 - Due to good thermo printer heat-smear resistance and good slipperiness, this product is in principle suitable for **Top-Coat thermo-papers**.

To observe:

- As it is valid for all UV-flexo varnishes, the thermo answer can be affected, if the ink layer is too thick.
- **Thermo-transfer/hot stampability:** This varnish is not stampable or not overprintable with the thermo-transfer method.

New combinations:

Note:

- Prior to production printing **new material grades** have to be evaluated for compatibility with the scheduled matt varnish/ink combination, even if its suitability on a comparable type of the same substrate group has been established.

The **galley proofs** are to be examined **after the punching** (particularly at the edges) for adhesion, scratch and water resistance (wet scratching and scuffing resistance), the resistance of the ink to the packaged product and other job-specific requirements.

Due to the possibility of unequal material shrinkage and other changes **these tests have to be repeated at the earliest after one day.**

- Leveling/printability, mechanical resistances (e.g. adhesion, folding resistance, punching resistance), resistance to water and the weather, and in particular the resistances to the packaged products, are governed to a relevant extent by the respective characteristics and resistances of the pre-printed inks. The latter is particularly applicable if the ink film on the punching edge is exposed, and hence subject to lateral attack.

Consequently, on each new job in which printing is done on a known material, but with **novel ink and printing combinations**, the aforementioned tests have to be carried out as well.

Optimum performance is achieved by using the following **criteria** in the **selection of the printing inks:**

- Preferably radical UV letterpress, UV offset, UV screen printing or UV flexo inks
- UV inks with or without few surface additives ("stampable" series)
- Best possible adhesion and resistance to water on the substrate to be printed
- Best possible resistance of the printing ink series used to the packaged product
- Exclusion of specific colors, the pigments of which have inadequate resistances to the product to be packaged or to light and the weather.
- Make sure that the typical inherent odor of the prints which you produce for any packagings which are intended for the **packaging of odor-sensitive products** cannot have adverse effects on the products. If you intend to print on materials which at a later time will be used to package or which will be located near food articles make sure to consult Siegwerk. Read our technical information "UV and electron beam-curing printing inks and varnishes: Physiological harmlessness and suitability for food packagings" (just ask us for your copy).

In case of doubt, consult our technical service well in advance.

Shelf life:

This product has under normal conditions a shelf life of at least **9 months**. Within this period the product is usable in conformity with the indications of this data sheet.

Normal conditions mean:

- storage in firmly closed, not yet tapped containers
- temperatures not exceeding 20°C for weeks or 25°C for days

The shelf life can be extended by cool storage below 15°C.

HSE

Product safety

Intended Use

Food packaging: yes

Compliance Management

In the manufacture of food packaging, the printer and/or packer/filler have the responsibility to ensure that there is no migration of concern through the substrate and/or via set-off from the printed outer side to the food contact surface in the stack or the reel.

The "Customer Guidance: Printing Inks for Food Packaging", in Appendix 2 "the Selection of the Ink Product" <http://www.siegwerk.com/en/customer-segments/sheetfed-uv/service.html> has to be observed.

*These products (**this product**) are (is) only suitable for use on the non-food contact side of food packaging, provided they are (**it is**) applied under the relevant Good Manufacturing Practices (GMP) and according to the information in this Technical Data Sheet. The printer, converter and packer/filler have the legal responsibility to ensure that the finished article 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 and industry requirements.*

Because of the differences in materials for printing, processing conditions and test criteria this Technical Information can only be of advisory character.

Our data reflect the latest state of our knowledge and are based on the characteristics established in the laboratory and on practical experience.

Your own tests with the original materials under the respective conditions are indispensable.

We disclaim any liability for applications for which this product is not foreseen.

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