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Product name: **SICURA Flex UV Overprinting Varnish 85-601583-9. (39-0-0126-2) DEO**

Product description: Flexo **overprinting varnish** that cures with UV-light according to the radical mechanism for in-line gloss- and protection varnishing, particularly for **polyethylene corona pretreated** and primered **synthetic self- adhesive label materials**.

Printing method: Flexo varnishing unit

Characteristics:

- **good resistances**
- **low shrinkage after after-curing**
- **high gloss**
- **Chlorine-free**

Substrates: Firmly adhering, adequately scratch-resistant prints which are also resistant to water, cosmetics, creams, shampoos, alcohol and cleaning agents and solvents – **provided that the individual pre-printed inks have been selected correctly** and that the processing conditions are correct – normally achieved on the following partially or solidly printed materials:

- **In-line corona pretreated polyethylenes, with a pretreatment level of min. 40-45 mN/m**
- **Varnished/primered polyethylenes**
- **Varnished/primered polypropylenes**
- **Selected varnished/primered aluminum (e.g. with PVC varnishing)**
- **Selected varnished/primered aluminum vapor coated substrates**
- **Selected varnished/primered polyesters**
- **Coated papers and cartons**
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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 normally 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:

Under normal conditions this varnish will be stable in storage for a period of **at least 9 months**, i.e. usable according to the data of this data sheet.

Normal conditions are construed to mean:

- Storage in closed and sealed containers which have not been opened;
- Storage temperature not exceeding 20°C for weeks or 25°C for days.

Storage at temperatures below 15°C can lengthen the stability in storage.

HSE

Product Safety

Intended Use

Food Packaging: no

Compliance Management

Only intended for food packaging if the processing conditions rule out the possibility of set-off in the reel or stack and the design of the final printed article ensures reliable functional barrier properties to migration.

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.

Because of the differences in substrates, processing conditions and test criteria this Technical Information can only be of an advisory character. Our data reflect the latest state of our knowledge and are based on the characteristics established in the laboratory, as well as 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 ink series or this product is not intended.

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