



# Technical Datasheet

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## Product Name

SICURA WL-Disc

### 1. Description / Application

SICURA WL-Disc series is a high performance waterless UV offset system, curing by radical mechanism with UV-light, **especially formulated for the combination of UV-Screen and UV-Waterless onto optical discs including CD's and DVD's.**

#### Ink System

- UV-Waterless Process-Set
- Standard UV-Waterless Pantone basic shades available

### 2. Product Safety

#### Intended Use

Food packaging, pharma, or hygiene: **NO**

Only acceptable 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. For further information, please refer to **Siegwerk's Customer Guidance: Printing Inks for Food Packaging ("Know How")** on <https://www.siegwerk.com/en/our-responsibility/product-responsibility/customer-communications/food-packaging-safety.html> in particular chapter 5. "The printer's selection of ink" has to be observed.

### 3. Properties / Substrates

#### Properties

- polyvalent fitness for use
- excellent flow properties
- outstanding adhesion properties
- low ink film shrinkage
- ink system delivered ready to print
- excellent printability
- low dot gain also at high colour density
- very good fastness-properties

#### Substrates

- All major types of primered CD/DVD (including polycarbonate).
- Unprimered CD/DVD after technical evaluation.

In case of doubt, please contact in time our technical department.

#### Guidelines for use

*Before the print job is started, new materials must be checked for compatibility with the inks of this series or with the planned ink-/overprinting varnish combination, even if their suitability on a comparable type of the same substrate group is proved.*

*The test prints, especially on self-adhesive labels, have to be examined after die-punching (in particular at the edges), for adhesion, resistance to scratching and water (resistance to wet scratching and scuffing), adhesion and scratch resistance after heat-sealing, resistance of the printed ink to the packaging contents and other application-specific requirements.*



*Due to the post-curing process, these properties may change during the first 24 hours after printing. Therefore please make a re-check after one day.*

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

#### 4. Printing and processing instructions

##### Basic shades

The inks of this series are supplied in a range of basic shades, with which most of the desired shades can be self-mixed (cf. attached list of basic shades). The basic inks correspond in shade largely to those of the PANTONE mixing system.

##### Guidelines for use

*As the choice of pigments for UV inks is limited, the inks in the range of the so-called "fanal" shades (Reflex Blue, Blue 072, Violet, Purple and Rhodamine Red) are slightly less brilliant than the correspondent PANTONE basic shades. Furthermore, differences in shade have to be expected when working with PANTONE mixing formulas.*

##### Printing plates

Toray plates for waterless inks. Negative plates are recommended.

##### Curing

Suitable for curing the inks of this series are medium pressure mercury vapour UV emitters with a power of at least 160 W/linear cm. Optimum results can be achieved using high performance quartz coated aluminium reflectors, which reflect almost the total UV radiation across the whole spectrum. For more power two or more units can be connected in series.

The printing speed and the quality of crosslinking depend not only on the curing unit but also on the shade, colour strength and opacity. Generally, black, dark blue, white and bronze inks will dry slower than yellow or red.

Stir up well each ink or varnish before use. Mainly whites, colours containing white, varnishes, mat varnishes as well as gold and silver inks show sedimentation of essential components.

Do not handle products without having consulted the corresponding safety data sheets. We supply them together with the first shipment.

##### Cleaning

The inks can be removed from tools by using methoxypropanol. To clean the sensitive waterless plates correctly, please follow the recommendations of the plate supplier or contact our technology department. Reactive UV thinners are not suitable for cleaning.



**5. Shelf life**

The inks of this series have under normal conditions a shelf life of **at least 12 months**. Within this period the products are 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.
- Do not expose open containers to direct sunlight or strong light sources.

**6. Product list**

| Product name                       | Product code       | Light fastness (WS) | Alcohol resistance | Solvent resistance | Alkali resistance |
|------------------------------------|--------------------|---------------------|--------------------|--------------------|-------------------|
| <b>Process Set</b>                 |                    |                     |                    |                    |                   |
| WL Disc Process Yellow C 1235      | <b>70-380167-0</b> | 4                   | +                  | +                  | -                 |
| WL Disc Process Magenta C 3036     | <b>70-880151-9</b> | 4-5                 | +                  | +                  | -                 |
| WL Disc Process Cyan C 5635        | <b>70-113278-9</b> | 7                   | +                  | +                  | +                 |
| WL Disc Process Black C 9935       | <b>70-980172-4</b> | 7                   | +                  | +                  | +                 |
| WL Disc Rubired light resist. 3035 | <b>71-880340-6</b> | 6-7                 | +                  | +                  | +                 |
| <b>PMS Basic Shades</b>            |                    |                     |                    |                    |                   |
| 41-WL Transparent White 1001       | <b>71-004016-3</b> |                     | +                  | +                  | +                 |
| 41-WL Orange PMS 021 C 1608        | <b>71-710238-8</b> | 4                   | +                  | +                  | +                 |
| 41-WL Warm Red 2050                | <b>71-880337-2</b> | 5-6                 | +                  | +                  | +                 |
| 41-WL Red PMS 032 C 2048           | <b>71-880339-8</b> | 6-7                 | -                  | -                  | +                 |
| 41-WL Purple 5400 *                | <b>71-100824-3</b> | 6-7                 | +                  | +                  | +                 |
| 41-WL Violet 5501 *                | <b>71-100823-5</b> | 6-7                 | -                  | +                  | +                 |
| 41-WL Reflex Blue 6400 *           | <b>71-113405-6</b> | 6-7                 | -                  | +                  | +                 |
| 41-WL Blue MPS 072 C 6413 *        | <b>71-113397-5</b> | 6-7                 | +                  | +                  | +                 |
| 41-WL Green 7900                   | <b>71-510516-9</b> | 8                   | +                  | +                  | +                 |
| 41-WL Intensiv Black 9992          | <b>71-980241-5</b> | 7                   | -                  | +                  | +                 |

\* These shades are in this series less pure due to the avoidance of the poorly resistant “fanal” pigments.

Light Resistance

The light fastness values refer to a solid tone printing. Light fastness decreases when colour strength is reduced or if colours are intermixed.

This applies also to other resistances mentioned in the product list.

Because of the differences in materials for printing, processing conditions and test criteria this Technical Data Sheet can only be of an advisory nature. 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 ink series is not foreseen.