

Technical Datasheet

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TerraEffekt® UV G 7/601 Mirafoil UVS 4027 E

Product description

Overprintable UV silver for paper and plastic substrates with a very high brilliance. This product is compliant to the Swiss Ordinance on Materials and Articles in Contact with Food (SR 817.023.21, date of version: April 01, 2013) and the Nestlé "Guidance Note on Packaging Inks" (date of version: 08/2016).

Also suitable for screen printing and flexo printing.

Material characteristics

- Delivery viscosity: 20 - 40 sec. (20°C, DIN 6 mm cup)
- Solids: ./.
- Specific weight: 1,1 - 1,3 g/ml

Packaging unit

- 4 kg tin

Field of application

Application

- sheet fed offset, coating unit (chambered doctor blade system)
- curing:
120 - 200 W/cm wave length approx. 240 - 380 nm
The curing of the UV varnish depends on efficiency of lamps, age of lamps and production speed.
- Recommended tissue: 180 . . . 120 L/cm

Substrates

- coated paper
- coated board

Printing products

- folding box
- folding box, cosmetics
- labels
- commercial prints, covers

Processing recommendations

- Stir well before use.
Mechanical stirring is recommended.
- These coatings require a flexo coating device fitted with an anilox roller and chambered doctor blade in order to obtain a known and controlled film weight.

- Recommended film weight: 4 – 8 g/m²/wet
- Different film weights of coating are obtained by changing to more or less coarsely engraved anilox roller. Cell volume should be as follows:
- Silver Coatings:
letters: 7 - 10 cm³/m²
surfaces: 11 - 14 cm³/m²
surface + letters: 9 - 11 cm³/m²
- Photopolymer printing plates should be used and when printing fine type or raster, a plate with an aluminum backing is recommended.
- The plate should have lines running from front to back in the non image areas to guarantee a homogeneous coating apply.
- The plate should be stretched firmly around the coating cylinder to avoid „doubling“.
Furthermore the printing pressure adjustment (roller, blanket/back pressure) should be adjusted to a minimum pressure (kiss-print).
- The dot gain characteristics of the photopolymer plate should be taken into consideration when processing the film.
- Screened Photopolymer plates, sponge rubber, blankets with calibrated underlay sheets should be used.
- During printing the speed of the plate surface and of the sheet must be identical to prevent from „slur“.
- We recommend to use tube pumps to reduce foam formation.
- With gold/silver coatings the end of the return pipe should be above the level of coating in the container in order to prevent from foaming.
- The coating container should be covered during use and closed tightly when not in use.
- There should not be large differences in the calliper of the substrate.
- In case of an offline coating we recommend for the primer a drying time of minimum 24 hours, in case of metallic printing inks minimum 48 hours.
- The total structure of substrate/printing ink/varnish must be cured sufficiently before processing and should be checked during the process.
- The property profile of the coating film is given in case of a complete curing.
The curing depends on the efficiency of lamps, life

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of UV lamps, machinery speed, general conditions of the UV unit (reflectors, etc.), temperature and the distance from the UV unit to the substrate.

We recommend to clean regularly the reflectors and - if necessary - to change the lamps in case of a drop in lamp efficiency.

- An overcoating is recommended to achieve a sufficient scratch resistance.
- The product can be diluted by addition of 2 - 3 % IPA.
- This reduces the flashpoint from $x > 100^{\circ}\text{C}$ to approx. 58°C or 46°C .

Cleaning

- Please clean machine and tools immediately with alcohol. Dried film clean up with TERRAGLOSS CLEAN Cleaning Agent G 13/160.

Storage

- Shelf-life from date of dispatch 3 months
- Applies to closed original containers at 5°C up to 30°C .
- The increase of viscosity is possible if the coating is stored wrong or for a longer time!
- Keep from freezing, heat and solar radiation.
- Do not pollute the varnish with washing water, cleaning agent or other varnishes.
- After opening use as soon as possible.
- The storage can cause a separation.
- Place under the exclusion of light.

Safety instructions

- If the varnish comes into contact with eyes please remove contact lenses and keep the eyelids open. Clean with plenty of water (10 - 15 min).
- Please pay attention to the information given in the material safety data sheet.
- Clean and rinse immediately with water and soap if the varnish comes into contact with the skin. Do not use solvents or dilutions. Contaminated clothing should be removed immediately.

Environmental recommendation

- Please pay attention to the information given in the material safety data sheet.
- Do not give the varnish into lakes and rivers or the sewage system.
- Remainders must be disposed professionally in compliance with valid instructions.

Please be advised

- All information provided on this product (in this sheet or elsewhere) are made to the best of our knowledge.
- This data sheet does not claim to be complete.
- All information are technical quality descriptions, advisory and due to the wide range of materials, production conditions, operations and processes do not release from own tests and examinations in customer-specific circumstances.
- If an application is intended to be made under different conditions than those specified in this sheet, we only assume liability after having examined the respective different conditions.
- We reserve the right to change product characteristics because of technical progress, amendment of applicable law and mandatory production-related needs