

Product Data Sheet

Screen Printing Varnish

SunChemical[®]
Coates Screen Inks

UV 70/821

UV-Curing Overprint Varnish, 1-Component

APPLICATION

Special varnish for printing on absorbent paper and cardboard materials.

For this application we also offer an opaque white screen ink, UVN 60/874-HD.

PROPERTIES

- Solvent-free UV-curing screen varnish UV 70/821 has a high reactivity.
- This varnish is delivered in a ready-to-print adjustment. Transparent varnish UV 70/821 results in a glossy finish.
- The flow properties of UV 70/821 have been adjusted to largely avoid substrate penetration of the varnish on absorbent paper and cardboard materials.
- UV 70/821 is suitable for one-sided overprinting. For possible suitability for double-sided coating pre-tests under local conditions are necessary.
- UV 70/821 is suitable for indoor and possibly also for short-term outdoor applications.
- Note: Because of the variety of paper and cardboard materials and different offset prints, pre-tests to confirm suitability of UV 70/821 are essential, especially concerning further processing of prints (cutting, folding, die-cutting, grooving, slotting etc.).

PRODUCT - OVERVIEW

- Clear varnish: UV 70/821 Medium viscosity, glossy

LIGHT FASTNESS

Suitability of UV 70/821 for short-term outdoor applications is limited.

ADJUSTMENT FOR SCREEN PRINTING

- Screen printing varnish UV 70/821 is supplied in a ready-to-print adjustment.
- Generally, addition of auxiliary agents is not necessary. For some rare and special applications and depending on local conditions, addition of certain agents/additives is possible.
- Prior to printing, the varnish should be stirred well to obtain a homogeneous dispersion of all ingredients.

AUXILIARY AGENTS

Application	Product	Addition in % by weight	Additional Information
Thinning	Additive UV/V*	Max. 10%	Standard thinner
Viscosity increase	Thickening powder	1 - 2%	Stir with mixer
Reactivity increase	LAB-N 560700	1 - 3%	Photoinitiator
Flow agent	Additive UV/VM	1 - 2%	Do not overdose!
	Additive UV/N	1 - 2%	Wetting agent, improves flow properties

* Thinner Additive UV/V is a reactive UV monomer, not a commercial solvent!

DRYING / UV-CURING

- UV 70/821 only dries/cures under UV-radiation.
- Suitable UV-driers with Hg medium-pressure lamps (250 – 400 nm) and an efficiency between 80 and 200 W/cm have to be used.
- Preferably, use reflectors with a focussed radiation.
- Ensure an even radiation (intensity/distance to the lamps) of the whole printed image.
- The UV-energy required depends on construction/performance of the UV drier, the thickness of the printed varnish layer and type of substrate. Hence, printers should determine the exact required energy with their own UV-drier.
- **UV-curing energy guide values:**
(printed with 150-31 fabric, white substrate)
UV-energy: approx. 250 mJ/cm²
(measured with Kühnast UV-integrator, 250 – 410 nm, max. 365 nm)
Belt speed: UV-radiator: 1 x 120 W/cm: 8 m/min.
2 x 120 W/cm: 16 m/min.
- Adhesion should only be checked several minutes after curing. Due to the post-curing process of the varnish and depending on the substrate, sufficient adhesion may sometimes only be achieved after up to 12 hours.

SCREEN FABRIC / STENCILS

UV 70/821 has been formulated for printing with fabrics ranging from 43 - 150 threads/cm. Suitability for printing with coarser or finer fabrics should be determined by corresponding pre-trials.

All copy emulsions and capillary films suitable for solvent based and UV-curing screen inks can be used, such as our program of SunCoat or Murakami products.

CLEANING

Uncured UV varnishes can be removed from stencils and tools using our solvent based universal cleaning agents of the URS range.

Cleaning of cured UV varnishes is very time-consuming and hardly ever possible.

Note: As the acrylates contained in these UV varnishes may cause skin irritation, clean contaminated skin with water and soap immediately. Remove and clean contaminated clothing straightaway.

PACK SIZE

Screen printing varnish UV 70/821 is delivered in 1 and 5 litre containers. Other pack sizes are available upon request.

SHELF LIFE

In closed original containers, UV 70/821 screen varnish generally has a shelf life of 1 year from date of production.

For exact date of expiry, please refer to the label.

SAFETY DATA SHEETS

Read safety data sheet prior to processing.

Safety data sheets comply with Regulation (EC) No. 1907/2006 (REACH), Appendix II.

CLASSIFICATION AND LABELLING

Hazard classification and labelling comply with Regulation (EC) No. 1272/2008 (CLP/GHS).

CONFORMITY

Coates Screen Inks GmbH does not use any of the substances or mixtures for the production of printing inks, which are banned according to the EUPIA (European Association of the Printing Inks Industry) exclusion policy.

Further compliance confirmations are available upon request.

ADDITIONAL INFORMATION ABOUT OUR PRODUCTS

Product data sheets: Auxiliary Agents for UV-Curing Screen Printing Inks
Brochures: UV-Curing Screen Printing Inks
Internet: Various technical articles are available for download on www.coates.de,
section "SN-Online"

The statements in our product and safety data sheets are based on our present experiences, however they are no assurance of product properties and do not justify a contractual legal relationship. We provide these details to inform customers about our products and their possible applications. However, on account of various factors influencing processing of our products it is absolutely essential to carry out printing trials under local production conditions. Choice of individual ink types and their suitability for the intended application is the sole and entire responsibility of the user. We do not assume any liability for any problems of technical or process-related nature. Any liability shall be limited to the value of the goods delivered by us and processed by the user.

All former product data sheets are no longer valid.

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