

Product Data Sheet

Screen Printing Varnish

SunChemical[®]
Coates Screen Inks

UV 70/488-NEU

UV-Curing Window Clear, 1-Component

APPLICATION

Special UV-curing screen printing varnish for partial coating and production of clear printed windows on matt transparent surfaces. Suitable for one-sided matt-structured primer-coated polyester foils, polycarbonate (PC) and rigid PVC.

PROPERTIES

- Solvent-free UV-curing screen varnish UV 70/488-NEU has a medium reactivity.
- This varnish is delivered in a ready-to-print adjustment with medium viscosity. Varnish UV 70/488-NEU results in a high gloss finish.
- Printed onto the matt side of transparent foils with one matt side UV 70/488-NEU will form a window, e.g. for digital displays.
- The cured ink film shows a medium flexibility, good mechanical abrasion resistance and chemical resistance.
- UV 70/488-NEU exhibits medium weather resistance.
- Note: Because of the variety of substrates and the different matt-structured surfaces, pre-tests to determine suitability of UV 70/488-NEU are essential, especially concerning further processing of prints and their intended use.

PRODUCT - OVERVIEW

- Clear varnish: UV 70/488-NEU Medium viscosity, high gloss

LIGHT FASTNESS

Applied on suitable substrates UV 70/488-NEU is suitable for medium-term outdoor applications.

ADJUSTMENT FOR SCREEN PRINTING

- Screen printing varnish UV 70/488-NEU 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. 5%	Standard thinner
Reactivity Increase	LAB-N 560700	1 - 3%	Photoinitiator

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

DRYING / UV-CURING

- UV 70/488-NEU 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 120-34 fabric, white substrate)
UV-energy: 250-400 mJ/cm²
(measured with Kühnast UV-integrator, 250 – 410 nm, max. 365 nm)
Belt speed: UV-radiator: 1 x 120 W/cm: 8 - 12 m/min.
2 x 120 W/cm: 16 - 24 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 24 hours.

SCREEN FABRIC / STENCILS

UV 70/488-NEU has been formulated for printing with fabrics ranging from 100 - 120 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 70/488-NEU is delivered in 1 litre containers. Other pack sizes are available upon request.

SHELF LIFE

In closed original containers, UV 70/488-NEU 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.

April 2018 - Version B1

Coates Screen Inks GmbH
Wiederholdplatz 1 90451 Nürnberg
Tel.: 0911 6422 0 Fax: 0911 6422 200
<http://www.coates.de>