

# Product Data Sheet

## Screen Printing Ink

**SunChemical®**  
Coates Screen Inks

# UVN 60/874-HD

UV-curing Screen Ink, Highly Opaque White, 1-Component

### APPLICATION

Opaque white for printing on absorbent paper and cardboard materials.

For this application we also offer a transparent varnish, UV 70/821.

### PROPERTIES

- Solvent-free UV-curing screen printing ink UVN 60/874-HD has a medium reactivity.
- UVN 60/874-HD is delivered in a ready-to-print highly opaque adjustment.
- The flow properties of UVN 60/874-HD have been adjusted to largely avoid substrate penetration of the ink on absorbent paper and cardboard materials.
- This ink adjustment is suitable for one-sided overprinting. For possible suitability for double-sided coating pre-tests under local conditions are necessary.
- UVN 60/874-HD 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 UVN 60/874-HD are essential, especially concerning further processing of prints (cutting, folding, die-cutting, grooving, slotting etc.).

### PRODUCT - OVERVIEW

- White, highly opaque UVN 60/874-HD

### LIGHT FASTNESS

Screen ink UVN 60/874-HD is only suitable for short-term outdoor applications.

### ADJUSTMENT FOR SCREEN PRINTING

- Screen printing ink UVN 60/874-HD 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 inks 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, also promotes flow properties.

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

## DRYING / UV-CURING

- UVN 60/874-HD 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 ink 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, dark substrate)  
**UV-energy: approx. 300 mJ/cm<sup>2</sup>**  
(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 ink and depending on the substrate, sufficient adhesion may sometimes only be achieved after up to 12 hours.

## SCREEN FABRIC / STENCILS

UVN 60/874-HD inks is formulated for printing with fabrics of 100 threads/cm. Printability and especially UV-curing properties with coarser or finer fabrics should be evaluated by corresponding 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 inks can be removed from stencils and tools using our solvent based universal cleaning agents of the URS range.

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

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

## PACK SIZE

Screen printing inks UVN 60/874-HD is delivered in 1 litre and 5 litre containers. Other pack sizes are available upon request.

## SHELF LIFE

In closed original containers, UVN 60/874-HD 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](http://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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