

# H0075858891

Product Family: -----

2-Component Varnish

## 1. Description

2-component varnish for gravure and flexography with high gloss and very good resistance to solvents.

## 2. Product Features and Suitability

2-component varnish H0075858891 improves the resistance to heat sealing of ethanol-based inks. Coated and cured prints have very good resistance to solvents.

High resistances are obtained after curing 5 to 7 days at room temperature (> 15 °C). If the storage temperature is below approx. 10 °C, the curing process may stop. It cannot be guaranteed that the curing process will start again if the printed reels are warmed up again. In any case the state of curing is not the same if the process has stopped at times and the resistance against solvents may not reach the target state.

We recommend preliminary examinations for every new print design.

- Adhesion 5
- Resistance to scratching 5
- Resistance to creasing 5
- Resistance to abrasion 5
- Resistance to heat sealing
  - smooth sealing tools 200 °C (Test on aluminum foil)
  - ribbed sealing tools 150 °C (Test on OPP-film, coextruded)
- Solid content varnish 26 ± 1 %
- Solid content hardener 60 ± 2 %
- Coating weight 1.5 to 2.0 g/m<sup>2</sup> (dry)
- Mixing ratio 100 parts of varnish H0075858891 and 40 parts of hardener H0073337891

## 3. Substrates

Substrate	Remark
LDPE-film	≥ 38 mN/m
OPP-film, coextruded	≥ 38 mN/m
PET-film, chemically treated	
PET-film, corona treated	
Aluminium foil, NC-coated	
Coated paper	

## 4. Printing Conditions

### 4.1 Cylinders/Plates

The product/products is/are suitable only for flexo printing forms made of rubber or ethyl acetate-resistant photopolymer, for all types of aniloxes and gravure cylinders.

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## 4.2 Printing Viscosities

The product/products should be stirred thoroughly and homogeneous before reducing with solvent. The optimum printing viscosity depends on press and running conditions.

Alcohol's and glycol's have not to be used for diluting or retarding purposes, since they interfere with curing of the varnish.

Before adding diluents the hardener H0073337891 has to be stirred carefully into the varnish. The mixing ratio is 100 parts of varnish H0075858891 and 40 parts of hardener H0073337891. This mixture remains usable for approx. 24 hours. Please refer to the Technical Data Sheet of hardener H0073337891.

Good results have been achieved at the following viscosities:

- Rotogravure : 15 – 16 sec./DIN 53211\* cup 4 mm corr. 28 – 34 sec./DIN 53211\* cup 3 mm
- Flexography : 18 – 22 sec./DIN 53211\* cup 4 mm

\* = The standard DIN 53211 has been replaced since several years with ISO 2431. This new standard has not been introduced completely in the German printing industry so far.

## 4.3 Reducing Solvents

- Diluent Ethyl acetate or Isopropyl acetate
- Retarder n-Propyl acetate or Methoxypropyl acetate

## 4.4 Wash up Solvents

Blends of Ethyl acetate and Methoxypropyl acetate are more effective than Ethyl acetate only.

## 5. General Handling

### 5.1 Storage

Warehouses should be approved and equipped appropriately. For more specific advice refer to the Material Safety Data Sheet (MSDS).

A storage stability of 12 months is guaranteed for unopened containers with intact seals when stored correctly (Temperature range between 10 and 25 °C).

### 5.2 Waste Disposal

Care should be exercised in the disposal of product waste. This should be carried out in accordance with good industrial practice, observing all the appropriate regulations and guidelines. For more specific handling advice refer to the Material Safety Data Sheet (MSDS).

## 6. End-use Safety

All Sun Chemical products are formulated to the latest CEPE/EuPIA guidelines. This excludes the use of carcinogenic, mutagenic and toxic for reproduction (CMR 1 and 2) or labeled (T) according to the Dangerous Substances Directive 67/548/EEC, substances classified as very toxic (T+) or toxic (T) and pigments based on compounds of Sb, As, Cd, Cr (VI), Pb, Hg, Se. The use of certain dyes, solvents, plasticizers and miscellaneous materials are also excluded. A copy of the document is available on request.

All Sun Chemical products are designed with end-use safety built-in. Combination of Sun Chemical products with products from other manufacturers may affect the suitability of the Sun Chemical product for specific end uses and/or applications. It is advised that in such circumstances the user undertakes a detailed risk assessment to ensure that safety is not compromised.

Acceptable technical performance of Sun Chemical inks is dependent on:



Our products are intended for sale to professional users. The information herein is general information designed to assist customers whether our products are suitable for their applications. All recommendations are made without guarantee, since the application and conditions of use are beyond our control. We recommend that customers satisfy themselves that each product meets their requirements in all respects before commencing a print run. There is no implied warranty of merchantability or fitness for purpose of the product or products described herein. In no event shall Sun Chemical be liable for damages of any nature arising out of the use or reliance upon this information. Modifications of the product for reasons of improvements might be made without further notice.

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- Control of product application weight (inks coatings and adhesives)
- Adequate drying on press (to ensure that the print is dry before conversion)
- Appropriate packaging design and structure
- Control of any migratable substances within the finished packaging structure
- Suitable adhesive used in accordance with supplier recommendations

The choice and control of substrate, design (including coverage and coat weight), process conditions (e.g. to ensure proper drying) and any materials from other suppliers are printer or converter technical requirements. Sun Chemical's technical team can provide assistance in the form of suggestions or direct support for our products.

**Food Packaging:** It is the ultimate responsibility of the food packer to ensure packaged food is safe. With regard to potential migration of substances in to the foodstuff from the printed packaging, it is the responsibility of the converter and food packer to ensure that migration does not exceed any permitted regulatory limitations.

To fulfill its responsibility within the supply chain, and following the signing of a legally binding mutual non-disclosure agreement, Sun Chemical will provide details to the customer of any potential migratable components present in its products through the preparation and communication of a 'Statement of Composition'

## 7. Disclaimers

This list of applications, substrates and processes provided in this document is not exhaustive. Please contact your local Sun Chemical representative for full technical evaluation of your application or process.

The performance of the product and its suitability for the customers' purpose depend on the particular conditions of use and materials being printed. Therefore, any statement provided in this document should not be construed as providing a guarantee of performance in a specific application area. Sun Chemical always recommends that customers carry out a full evaluation of performance and safety-in-use prior to using our products in commercial applications.

These products are only suitable for use on the non-food-contact side of food packaging provided that they are applied under the relevant Good Manufacturing Practices (GMP) and according to the recommendations of this Technical Data Sheet.

The printers, converters and the packer/filler have the legal responsibility to insure that the finished article is fit for the intended purpose (s) and that the ink and coating components do not migrate into the food at levels that exceed legal and industry requirements.

## 8. Technical Assistance/Contacts

For further information, please contact your local Sun Chemical team or visit the Technical Help Desk at website: <http://www.sunchemicalhelpdesk.com>



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# H0073337891

Product Family: -----

Hardener for 2-Component Systems

## 1. Description

Isocyanate hardener for 2-component inks and varnishes.

## 2. Product Features and Suitability

The mixing ratio of hardener and inks or varnishes depends on the application. The mixing ratio is a part of the Technical Data Sheets of the inks and varnishes.

The hardener has to be stirred into the ink or varnish before the dilution with solvent.

- Solid content 60 ± 1 %

## 3. Substrates

Substrate	Remark
Refer to TDS of the 2-component ink or varnish	

## 4. Printing Conditions

### 4.1 Cylinders/Plates

Refer to TDS of the 2-component ink or varnish

### 4.2 Printing Viscosities

Refer to TDS of the 2-component ink or varnish

### 4.3 Reducing Solvents

**Attention:** Alcohol's and glycol's have not to be used for diluting or retarding purposes, since they interfere with curing of the ink. Refer to TDS of the 2-component ink or varnish.

- Diluent Ethyl acetate or Isopropyl acetate
- Retarder n-Propyl acetate or Methoxypropyl acetate

### 4.5 Wash up Solvents

Blends of Ethyl acetate and Methoxypropyl acetate are more effective than Ethyl acetate only.

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## 5. General Handling

### 5.1 Storage

Warehouses should be approved and equipped appropriately. For more specific advice refer to the Material Safety Data Sheet (MSDS).

A storage stability of 6 months is guaranteed for unopened containers with intact seals when stored correctly (Temperature range between 10 and 25 °C).

**The container has to be resealed immediately after taking out hardener. The hardener is sensitive to humidity. Therefore the content of containers that had been opened should be completely consumed within 8 days.**

### 5.2 Waste Disposal

Care should be exercised in the disposal of product waste. This should be carried out in accordance with good industrial practice, observing all the appropriate regulations and guidelines. For more specific handling advice refer to the Material Safety Data Sheet (MSDS).

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- Control of product application weight (inks coatings and adhesives)
- Adequate drying on press (to ensure that the print is dry before conversion)
- Appropriate packaging design and structure
- Control of any migratable substances within the finished packaging structure
- Suitable adhesive used in accordance with supplier recommendations

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