

**Solimax™**

From the SunUno™ Family of Multipurpose Inks

**1. Description**

**Solimax™** is a range of high strength solvent based colours specifically formulated for both surface print and reverse printed adhesive lamination applications across an extensive range of flexible packaging substrates. Suitable for both Flexographic and Rotogravure print processes.

**2. Product Features\***

- Excellent mixed stability based on Sun Chemical Nitrocellulose concentrates.
- Excellent printability.
- Low levels of retained solvents.
- High lamination bond strengths.
- Suitable for use on a wide variety of flexible packaging films.

\*Specific application performance data, where available can be provided by your Sun Chemical representative.

**3. Product Suitability\*****3.1 Applications**

**Solimax™** is intended for use in the following areas:

- Typical Adhesive Lamination bonds of 2-5N/15mm.
- Surface printing on various end use applications including food packaging.
- Adhesive lamination for various end-uses including food packaging.

**Solimax™** should not be used for other end uses without prior discussion with your local Sun Chemical representative and is **not** suitable for:

- Direct food contact
- High temperature applications including microwave or ovenable designs.

\*Please refer to your local Sun Chemical representative for specific details.

**3.2 Substrates**

**Solimax™** is suitable for the following substrates:

Corona treated Polypropylene

Chemically treated Polyester.

PVdC Coated Polyester.

**3.3 Adhesives**

**Solimax™** inks may be laminated with a number of suitable solvent-free and solvent-based adhesives. The actual bonds strengths will depend greatly on the choice of substrate, adhesive and the applied weight of both inks and adhesive. It is recommended that rigorous tests are carried out before commencing any commercial trials. Sun Chemical can provide assistance to confirm suitability however it is recommended that all ink / substrate specifications are tested against appropriate regulatory standards and test methods.

**working for you.**

#### 4. Colour Range

Solimax™ inks are available as a finished ink range or as Concentrate plus Technology varnish for dispensing systems. A wide range of Colours are available as standard. A bespoke Extender Medium and Process Set are also available

#### 5. General Handling

##### 5.1 Storage

Solimax™ inks are considered highly flammable. Suitable precautions should be observed to avoid ignition sources. Temperature of storage needs to be kept between 5°C and 35°C.

Shelf life: 12 months under above conditions in tightly sealed containers.

##### 5.2 Waste disposal

Care should be exercised in the disposal of printing ink 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. Printing Conditions

##### 6.1 Printing Viscosities

All inks must be thoroughly stirred and homogeneous before reducing with solvent. The optimum printing viscosity depends on press and running conditions. Good results have been achieved at the following viscosities:

- Rotogravure: 19-24 sec (Zahn cup N°2).
- Flexography: 22-30 sec (Zahn cup N°2).

##### 6.2 Reducing solvents

- Flexography:
  - Normal: 3:1 ethanol TSDA / normal Propyl acetate
  - Slow drying: 3:1 n-propanol / normal Propyl acetate
- Rotogravure:
  - Normal: 2:1 ethanol TSDA / ethyl acetate
  - Slow drying: 2:1 n-propanol / normal Propyl acetate

##### 6.3 Wash up solvents

Alcohol / ester blends such as ethanol / ethyl acetate blends in a ratio of approximately 2:1 - 3:1.

##### 6.4 Cylinders / Plates

Solimax™ is suitable for all common types of anilox, cylinders (chemical and mechanical engraving) and photopolymer printing plates.

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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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## 7. End-use safety

**Solimax™** is a range of high strength solvent based colours specifically formulated for both surface print and reverse printed adhesive lamination applications across an extensive range of flexible packaging substrates.

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 labelled (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, plasticisers 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 **Solimax™** is dependent on:

- Control of film weight (Inks and Adhesive)
- 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'

## 8. 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.

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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.

This product is only suitable for use on the non-food-contact side of food packaging provided that it is 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.

## 9. Technical Assistance / Contacts

For further information, please contact your local Sun Chemical team.

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