

## SLD 008 UV curable cold-foil adhesive

---

### SOLARIS™ SOLARDOR

High performance UV curing cold-foil adhesive for narrow-web flexo printing. Designed for in-line cold-foil application over suitable UV, offset and water based flexo inks printed onto polythene, oriented polypropylene or coated paper and board.

### Characteristics

- Excellent adhesion over SOLARIS™ UV and waterbased flexo inks.
- Fast curing when UV light is transmitted through specifically adapted foils.
- Low viscosity with good tone and fine line printability.
- Low applied coating filmweight (6-7 cm<sup>3</sup>/m<sup>2</sup> anilox).

### Applications

**Solaris Solardor** has been specifically designed for high quality cold foiling in label, packaging and commercial applications including with security and other special effect foils adapted for the cold foil process.

### Product range

**Solaris Solardor SLD008** cold foil adhesive is ideally suited for use in combination with **SOLARFLEX™** and **SOLARFLEX SPEED™** UV flexo inks and **SOLARSET®** offset inks on film and paper and **SOLARIS™** water based flexo inks on paper.

### **Substrates**

**Solaris Solardor** is adapted for suitable grades of PE and OPP film and coated papers and boards.

**Note:** Top coating or corona treatment is recommended to ensure an optimum treatment level of 38-44 dynes/cm

### **Machines**

**Solaris Solardor** is designed for use on all types of narrow-web flexo presses equipped with inter-deck UV lamps and appropriate anilox metering systems, including open pan and chamber doctor configurations.

### **Plates, rollers**

**Solaris Solardor** is suitable for use with all UV compatible plates and rollers.



**Additives**

**Solaris Solardor** is supplied ready for use.

**Wash up**

**Solaris Solardor** can be washed up using proprietary products suitable for UV ink wash-up. Please contact our technical services for information and recommendations.

**Health, Safety and Environment**

**Solaris Solardor** should be used in accordance with normal standards of industrial hygiene. Please refer to the information provided on product labels and the relevant Safety Data Sheet.

**Solaris Solardor** has been formulated in accordance with the EuPIA (European Printing Ink Association) **Guideline on Printing Inks Applied to the Non-Food Contact Surface of Food Packaging Materials and Articles, June 2005.**

Printing inks, varnishes and contaminated residues should be disposed of in accordance with local and international regulations in force. For further advice please contact Sun Chemical.

**Packaging and storage**

**Solaris Solardor** is supplied in 5 litre black plastic jerry cans and is stable for at least twelve months in original packaging when stored at temperatures between 5°C and 25°C. **Solaris Solardor** is particularly sensitive to heat and daylight and should be stored in closed containers out of direct sunlight. Careful stock rotation is recommended.

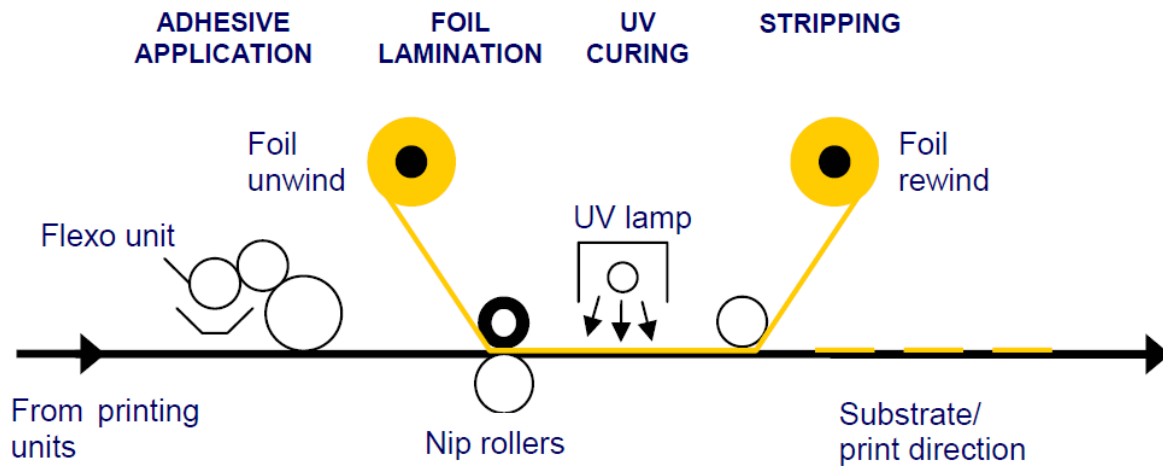
**Usage advice - optimisation of the cold foiling process**

Cold foiling enables high definition foiling in-line with flexo, offset or letterpress printing without the need for the heated dies and rollers. Fast set-up and high printing speeds can be achieved with excellent registration.

The following applications notes will assist in optimising the process. To achieve consistent results we recommend careful choice of materials and printing conditions together with implementation of a process and quality control system. Tests should be completed before a full print run. Please contact Sun Chemical for further advice.



**Cold foiling configuration**



**Application film-weight**

**Solaris Solardor** adhesive should be applied using an anilox roller with a doctor blade to ensure a continuous and controlled adhesive filmweight. We recommend an anilox specification of typically 120 l/cm (300 l/inch)  $6.5 \text{ cm}^3/\text{m}^2$  (4 BCM). Plates should hard or medium to maintain image definition and backing tapes selected depending on the image type; solid, line or tone work (harder preferred). Verify that the adhesive is evenly applied and that the print quality is good (minimised edge squash and no imperfections) before commencing foiling. The adhesive is tinted lightly blue to aid register for in-line foiling. Once running, check foil application and adhesive cure.

**Press configuration**

To ensure good adhesion the UV lamps should be mounted as close as possible to the lamination unit nip where the foil is brought into contact with the print. Ensure that the foil is fed into the nip smooth and true without creasing to ensure good contact is maintained through the UV lamp. The foil tension should be adjusted to achieve best results. The lamination station should be equipped with a smooth rubber roller of 85-90 Shore hardness or above and a steel bottom impression roller. Nip pressure may need to be varied for different substrates.

Inks should be fully cured before foiling over them and should be free of silicones and other additives that could interfere with foil adhesion. Press side additives should not be added into the ink or



adhesive.

### **UV lamps**

UV lamps should be of sufficient power to fully cure the adhesive at production speed. Insufficient curing will result in poor adhesion. Minimum power of 1 x160 w/cm (400 w/in) will be required at press speeds of 50-60 m/min and up to 2 x 200 w/cm (500 w/in) lamps or higher for speeds of 80-100 m/min or above.

### **Substrates**

We recommend the use of top-coated films or surface corona treatment on uncoated films to a level of 38-44 dynes/cm. In-line treatment will give the best foil adhesion. Top coated films should not normally be treated as this may cause the coating to embrittle or cause pin holing. Debris on paper or film surfaces can interfere with adhesive printability and foiling quality as well as adhesion; lamination rollers, guides and printed substrate should be spotlessly clean. Papers and boards should be coated grades and not highly absorbent or the adhesive may penetrate, affecting cure and adhesion.

Our Products are intended for sale to professional users. The information herein is general information designed to assist customers in determining the suitability of our products 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.

