

SolarLam® Adhesives

Part of the SOLARIS® System

1. Description

SolarLam® Adhesives is a range of UV-Curing adhesives intended for in-line lamination of clear films over suitable UV or water-based flexo inks, printed onto paper or plastics commonly used in the narrow web market.

2. Product Features*

- Excellent lamination bond strengths over SOLARIS® System UV and water-based flexo inks.
- Fast curing.
- Very low yellowing.
- Low viscosity and good printability over SOLARIS® UV and water-based flexo inks.
- Heat, chemical & moisture resistant when fully cured.

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

3. Product Suitability*

3.1 Applications

SolarLam® Adhesives are intended for use in the following areas:

- Film/film and film/paper in-line lamination by curing the wet-applied adhesive through a UV-transparent clear film.
- Application on suitable grades of paper or top-coated plastic self-adhesive labels.
- Other paper or board applications where a second clear web needs to be laminated.
- For printing over SOLARIS® System UV and water-based flexo inks.

SolarLam® Adhesives are **not** suitable for use in the following areas:

- Primary food packaging or secondary food packaging unless there is an effective functional barrier.
 - Plastic packaging and bottles will not usually provide an effective barrier to migration.
 - Printers should assure themselves that use of these products on food packaging has been fully assessed for risk and the finished printed product meets all relevant regulatory requirements.
 - Typically, the use of specifically formulated Low Migration (LM) products will be required.

SolarLam® Adhesives should not be used for other end uses without prior discussion with your local Sun Chemical representative.

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

working for you.



3.2 Substrates

SolarLam® Adhesives are suitable for most grades of label stocks commonly used in the Narrow Web industry. Corona treatment is recommended for non-top-coated plastic substrates to ensure an optimum treatment level of 38-44 Dynes/cm but preliminary tests should always be conducted prior to producing commercial print. With significant variation between different grades of substrates, the printer should take any specific advice from the substrate manufacturer and make any necessary tests under realistic conditions before commercial printing.

The second applied web should be transparent to UV light to allow the wet adhesive underneath to cure adequately. Clear polypropylene and thin gauge polyesters are usually suitable. It can also be beneficial to bond strengths to apply corona treatment to the second web to improve the wetting and adhesion of the adhesive.

* Please refer to your local SunChemical representative for specific details.

4. Safety, Health and Environment

SolarLam® Adhesives should be used in accordance with normal standards of industrial hygiene. Please refer to the information provided on product labels and relevant Safety Data Sheets. For more details on handling of UV materials please refer to the Health and Safety Commission booklet "Safety in the use of inks, varnishes and lacquers cured by ultra violet light".

4.1 Storage

SolarLam® Adhesives are supplied in 5 Kg black plastic cans. Shelf life is at least 12 months from date of manufacture in their original containers when stored between 5° and 25°C and protected from direct sunlight but may remain useable for longer periods.

4.2 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 local regulations and guidelines. For more specific handling advice refer to the Safety Data Sheet (SDS).

5. Printing Conditions

5.1 Printing Viscosities

SolarLam® Adhesives are supplied press-ready and should not need adjusting under normal conditions whether using open-pan or chamber configurations.

5.2 Wash Up

A variety of proprietary wash-up solutions are available which are suitable for use with UV inks and press components such as flexo plates and pipes. Please contact Sun Chemical technical services or your Sun Chemical representative for recommendations and advice.

5.3 Plates and Rollers

SolarLam® Adhesives are suitable for use with UV compatible photopolymer plates commonly used in the industry. All rollers, tubes, sealants etc. must also be resistant to UV materials.



5.4 Factors affecting final bond strength

- substrate grade and thickness.
- the level of surface energy and surface type of both substrates
- adhesion of inks to the base film, adhesive to ink and adhesive to second web
- number and power of UV lamps and the cleanliness of lamps and reflectors
- press speed, nip pressure, and film-weight of adhesive applied

6. End-Use Safety / Assumptions

Acceptable technical performance of **SolarLam® Adhesives** is dependent on:

- Control of film weight.
- Adequate curing on press to ensure that the print is fully cured before conversion.
- Appropriate packaging design and structure.

Choice and control of film weight, curing and substrate are printer technical requirements for which the Sun Chemical technical team can provide assistance if required.

SolarLam® Adhesives are not intended to be used in applications where low migration is an end-use requirement. There are materials within the adhesive formulations which have the potential to migrate under certain conditions. If a label, sleeve or tag etc. forms part of a food package, it is the responsibility of the converter and food packer to ensure that migration does not exceed any permitted regulatory limitations.

Code	Description	Comment
SLA1278	SOLARLAM IN-LINE UV LAMINATING ADHESIVE	High optical brightener content for visibility during printing
SLA1280	SOLARLAM IN-LINE UV LAMINATING ADHESIVE	Free of optical brightener

Please see www.sunchemical.com for further information on Sun Chemical products and services and contact your local Sun Chemical representative for specific product advice.

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Sun Chemical Europe
Wexham Springs
Framewood Road
Slough, SL3 6PJ
United Kingdom
Tel + 44 (0)203 139 0000
Fax + 44 (0)203 139 0001
www.sunchemical.com

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