

SunLam™ LX-830 / KW-75

From the SunBond™ family of medium performance lamination adhesives

1. Description

LX-830/KW-75 is a 2 component solvent based lamination adhesive based on polyester technology, cured with an aromatic isocyanate hardener characterized by ultra-fast PAA decay. LX-830/KW-75 is designed for the lamination of plastic films to other plastic films, to AL-Vacuum metallized films and AL foil.

Principal uses are for flexible packaging materials, such as dry foodstuffs, liquids and boil-in-the-bag foods. It is also suitable for non-food packaging such as shampoos and detergents. The suitability of these laminates should be evaluated before commercial production.

2. Product features

SunLam Lamination Adhesive LX-830/KW-75:

- Shows excellent adhesion to all films commonly used to produce high specification laminate structures, especially aluminium foil.
- Are compatible with Sun Chemical's SunStrato range of lamination inks.
- Have high curing speeds at room temperature.
- Retain excellent bond strengths during and after Boil in the bag applications.

3. Product Suitability*

3.1 Applications

SunLam Lamination Adhesive LX-830/KW-75 is intended for use in the following areas:

- Medium Performance Lamination (boil-in-the-bag).
- Good chemical resistance against different filling goods.

3.2 Substrate

SunLam Lamination Adhesive LX-830/KW-75 is suitable for the following substrates and laminate structures:

- OPA/OPP
- PET/AL/LDPE
- OPA/LDPE
- PET/LDPE

For any other structures, please refer to your local Sun Chemical representative for specific details and advice.

3.3 Inks

SunLam adhesives can be used to laminate a wide range of solvent-based inks, including all of those from the SunStrato range (Duratort, Duraply, Duralam and Duraflex). The actual bond strengths achieved will depend greatly on the choice of substrate, ink technology and applied film weights of both inks and adhesive. It is recommended that rigorous tests be carried out before commencing any commercial trials. Sun Chemical can provide assistance to confirm suitability however it is recommended that all ink / adhesive / substrate specifications are tested against appropriate regulatory standards and test methods.

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



4. General Handling

4.1 Storage

The components of SunLam Lamination adhesives are highly flammable. Suitable precautions should be observed to avoid ignition sources, temperature of storage: from 5°C to 30°C. Shelf life: 6 months under above conditions.

4.2 Waste disposal

Care should be exercised in the disposal of mixed lamination adhesive waste. Disposal of the reactive components 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 safety data sheets (SDS).

5. Adhesive Application Conditions

5.1 Mixing

	LX-830		KW-75
Solids	Polyester		Polyisocyanate
Viscosity	75%		75%
Solvent	3600-5400 mPa.s [25 °C]		1000-3000 mPa.s [25 °C]
Mixing Ratio	Ethyl Acetate		Ethyl Acetate
	10	:	1.5
	(10	:	2)

(NOTE)

If LX-830/KW-75 is required to perform under severe conditions, change the mix ratio to 10 : 2

Examples where this is advised include:

- Laminate structures which include resealable “zippers”
- When applying the adhesive directly onto printed inks
- Boil-in-the-bag applications.

All the following results were measured with a mixture ratio of 10/1.5.

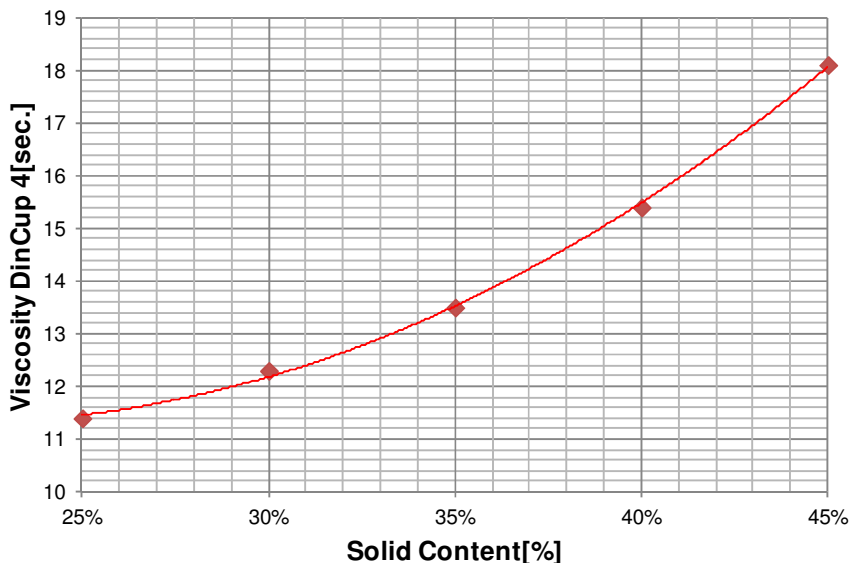
Processing

LX-830/KW-75 can be applied at a solids content of 25-45%.

Solid content (%)	LX-830 (Kg)	KW-75 (Kg)	EtAc (Kg)	Viscosity (s) Din cup #4 at 25°C
25	18	2.7	41.4	11.4
30	18	2.7	31.1	12.3
35	18	2.7	23.7	13.5
40	18	2.7	18.1	15.4
45	18	2.7	13.8	18.1



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5.2 Application weight

3.0 to 5.0 g/m² dry, depending on substrate and application.

5.3 Drying

The solvent must be removed completely to avoid odour/taint. Typically, the drying temperatures should fall within the range 60 to 100°C and an increased profile temperature setting of the oven is highly recommended.

5.4 Nip Temperature

Nip roller should be heated to 60-80°C.

5.5 Curing

Mechanical proprieties develop in 3 days at 25°C.

Chemical curing process and maximum proprieties develop after 5-7 days at 25°C.

In order to achieve the highest performance, we recommend to post cure the adhesive at 40°C for 2-3 days.

5.6 Pot Life

24 hrs at temperature below 25°C.

5.7 Shelf Life

LX-830/KW-75 can be stored for up to 6 months in the original unopened packaging, when stored below 30°C.

5.8 Reducing solvents

Ethyl Acetate/MEK

5.9 Wash up solvents

Ethyl acetate/MEK

5.10 Application cylinders / doctor blades and smoothing bars

SunLam Lamination Adhesives are suitable for all types of aniloxes, doctor blades, smoothing bars and flexo or semiflexo coating units.

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6. Regulatory Compliance

Adhesive SunLam LX-830/KW-75 is in compliance with FDA 175.105.

Due to the evolving nature of European Legislation, we suggest you contact your local sales or technical representative, in order to get the most update information available.

Acceptable technical performance of SunLam Lamination Adhesives is dependent on:

- Control of product application weight (inks coatings and adhesives).
- Adequate drying (to ensure that the adhesive coating is dry before lamination).
- Appropriate packaging design and structure.
- Control of any migratable substances within the finished packaging structure.
- Appropriate inks selected 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. Your local Sun Chemical technical team can provide assistance in the form of suggestions or direct support for our products.

To fulfil its responsibility within the food contact materials supply chain, and following the signing of a legally binding mutual non-disclosure agreement, Sun Chemical will provide relevant information to the customer regarding migratable components present in its products through the preparation and communication of a 'Statement of Composition'. The SunLam Lamination Adhesives are formulated with specific additives with the potential to migrate, details of these are available through statement of composition disclosure.

7. Disclaimers

The SunLam Lamination Adhesives 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 printer, converter and the packer or filler entity have the legal responsibility to ensure that the finished article is fit for the intended purpose (s) and that the adhesive, ink and coating components do not migrate into the food at levels that exceed legal and industry requirements as outlined in the EU Framework Regulation (EC) No 1935/2004 and the GMP Regulation (EC)No 2023/2006 and for film applications the Plastics Directive 2002/72/EC .We recommend that the finished packaging is tested under appropriate representative conditions of use if there are any doubts regarding compliance.

8. Technical Assistance / Contacts

For further information, please contact your local Sun Chemical team or visit our website on www.sunchemical.com

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 lamination 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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