

## SF9060A/SF9060B Solvent Free Polyurethane Adhesive

### Description

SF9060A/SF9060B is a two-component solvent-free polyurethane adhesive. It can form a flexible film after fully curing. It has good bond strength and heat seal strength. It is suitable for BOPP/ CPP lamination and has low strength attenuation.

### Declaration

OCHEM SF9060A/SF9060B 2-component solvent-free polyurethane adhesive are in compliance with the positive lists of the following, internationally accepted guidelines for the production of articles intended to come into indirect contact with food stuff.

- EU RoHS directive (EU) 2015/863 amending Annex II to directive 2011/65/EU
- CFR, title 21, § 175.105 of the FDA, Washington D.C., respectively
- Regulation (EC) No 1907/2006 concerning the REACH

### Technical Properties

These properties are typical but do not constitute specifications.

Item	SF9060A	SF9060B
Type	Hardener	Main agent
Ingredient	NCO	OH
Appearance	Yellowish transparent liquid	Yellowish transparent liquid
Density (g/cm <sup>3</sup> )	1.119	1.018
Solid Content(%)	100%	100%
Viscosity (BKF25°C)	2000±500cps	600±300cps

### Typical Features:

- Widely used in laminating of various treated film like BOPP、CPP、LDPE、PET、PA、 and Aluminized film etc.
- Solvent free, reduce the production cost, avoid the problem of the residual solvent,
  - improve the working environment, effectively reduce the pollution and the risk of fire

- Excellent performance of machining, High speed laminating process,
- Lower coating weight, greatly decline the production cost; without drying section, save the cost of energy; without solvent, save the cost of material
- Incombustible, avoid the risk of fire accident. Without the solvent, be unarmful to the workers .
- Available to operate in room-temperature, easy to clean

### Recommended Operating Conditions.

- ◆ The adhesive should be used up in laminator within 40 minutes after 2-components mixed
- ◆ SF9060A/SF9060B can be used for most films. The film should be corona treated prior to laminating for better adhesion
- ◆ SF9060A:SF9060B recommended mix ratio is 100:75 and volume ratio is 100:82. The mix proportion of SF9060A/SF9060B can be from 100:65 to 100:85.
- ◆ It is recommended to use at 30°C to 40°C or room temperature (25°C) . According to different operation requirements, the recommended usage amount is 1.0-2.0g/m<sup>2</sup>, please find following different recommended usage amounts in laminations of different films structures.

Type	Films Laminating Structure	Usage Amount	Mix ratio
Two layers laminating	Plain films: BOPP/CPP, BOPP/PE, PET/PE, NY/PE,PET/CPP	1.2-1.3 g/ m <sup>2</sup>	100: 70~75
	Printed films: BOPP/PE, BOPP/CPP, PET/PE, PET/CPP	1.3-1.5 g/ m <sup>2</sup>	
	Boiling grade films: NY/PE, PET/CPP	1.4-1.6 g/ m <sup>2</sup>	
Multi-layer laminating	VMPET/PE, VMPET/CPP	1.4-1.6 g/ m <sup>2</sup>	100:75-80
	AL/PE	1.4-1.6 g/ m <sup>2</sup>	
Aluminized structures	BOPP/YYVMPET	1.6~1.8g/ m <sup>2</sup>	100:80-85
	BOPP/VMCPP, BOPP/VMPET	1.6~1.8g/ m <sup>2</sup>	

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Note: The above is for reference only, please adjust according to the actual situation (film thickness, ink area, temperature and humidity of the workshop, equipment status).

- ◆ Laminating Temperature: please find following different recommended operating temperatures in different processing sections.

Item	Temperature °C	Remark
A Component	40~45 °C	When the temperature is low in winter, the temperature can be appropriately increased
B Component	35~38 °C	
Feeding Tube	35~40 °C	Please make adjustments according to the actual situation. For example, when high frictional coefficient films are required or PE film is required to be relatively thin in second laminating, the laminating temperature can be properly reduced, and the cooling roll can be opened if possible. In winter conditions, the cooling roller can be changed to a heating roller, and then the laminated aluminized films or thick PE films can have good leveling properties.
Transfer Roller	35~40 °C	
Coating Roller	35~40 °C	
Laminating	35~45 °C	
Curing Chamber	35~40 °C	

Curing time	> 36 hours	The special structures have to be curing for longer time, such as boiling grade, retorting grade, etc. The actual requirements shall prevail.
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Note: When the temperature is low in winter, the adhesive should be put into the curing room in advance for more than 4 hours. To ensure a suitable operating environment, please pay attention to the environmental temperature and humidity in the summer, the moisture absorption of the film, and solvent residual of the printed film, etc. Otherwise, it is easy to lead the adhesive sticky and other problems, the operating humidity should not exceed 80%. When the humidity is low in winter, the mix ratio should be properly adjusted.

### Cleaning

After production, the surface of the device is cleaned with a suitable solvent to prevent it from being hard to clean after curing.

### Package

Pack in 200L steel drum normally.

A-component is 200kg/drum B-component is 150kg/drum

### Safety & Storage

This product should be stored in the room without direct sunlight at temperature 15-25 °C, shelf life would be 12 months in unopened drums, it should be used as soon as possible after drum opened.

### Attentions

- When laminating different types of ink or transparent ink film, it is necessary to confirm whether it is suitable
- When laminating PET printed film, confirm whether the appearance meets the requirements or not
- If the contents of the package are corrosive, please confirm and start production
- In actual production, if other types of OCHEM solvent-free adhesive are replaced, the cylinder, pipelines and rollers may not be cleaned. If solvent free adhesives other than OCHEM adhesives are replaced, the user must perform thorough cleaning of the feeding system.
- Please stop using adhesive and then contact us when you find that the adhesive has become turbid or there is agglomeration.