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**Technical Data Sheet** 

polyurethane adhesive SF9220A + SF9220B

## Description

SF9220A/SF9220B is a two-component solvent-free aromatic polyurethane adhesive that resists 121°C /40min in film/film packaging, retaining high peeling strength and heat sealing strength for long time after laminated films fully cured. The adhesive has a long storage time after mixing, and is easy to handle and easy to clean; the adhesive does not absorb slip agent from thick PE film, thereby having excellent smoothness, widely used in laminating of various treated films, foil and metalized films, PET/AL and PET/VMPET in particular.

ltem	SF9220A	SF9220B		
Туре	Isocyanate prepolymer	Polyol		
Ingredient	NCO	ОН		
Appearance	Yellowish transparent liquid	Yellowish transparent liquid		
Density (g/cm³)	1.17	1.15		
Solid Content(%)	100%	100%		
Viscosity (BKF25℃)	4500±500cps	2000±1000cps		
Mix Ratio in Weight (KGS)	100	60~75		
Mix Ratio in Volume (CBM)	100	58.97~73.72		

**Technical Properties** 

**Typical Features:** 

- **Health:** Since no solvent is used in the process, there will be no impact on the physical and mental health of workers;
- Environmental protection: No exist solvent emissions pollution to the environment;
- **Security:** There is no danger of fire and explosion in the process of safe transportation and use, and there is no need to install explosion-proof facilities;
- Energy conservation: Consumed power is less than half of that of dry lamination
- Excellent Resistance: resistant of 121°C/40min film/film retort and high slip agent or additives in thick PE film
- **Economical coating:** coating weight on non-retort packaging (1.2~2.2g/m2)

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# Coating weight and mix ratio

Material	Pack Type	Mix ratio (weight)	Coating weight	Mix ratio (weight)	Coating weight	Curing conditions
BOPP/VMPET/PE	Laminated rolls	outer layer 100: 75	1.8-2.2g/ m <sup>2</sup>	Internal layer 100: 75	1.8-2.2g/ m <sup>2</sup>	38-40°C,36h
BOPP/VMCPP, PET/CPP, PA/CPP	Laminated rolls	100:75	1.8-2.2g/ m <sup>2</sup>			38-40°C,24-36h
BOPP/VMPET/PE, PET/VMPET/PE		outer layer 100:75	1.8-2.2g/ m <sup>2</sup>	internal layer 100: 75	1.8-2.2g/ m <sup>2</sup>	40-45°C,36h
AL/PE				internal layer 100: 60	1.5-2.2g/ m <sup>2</sup>	40-45°C,36h
PET/AL/PA/PE	Heavy weight pack	outer layer 100:60~65	1.8-2.2g/ m <sup>2</sup>	2nd,3rd layer 100: 60	1.5-2.2g/ m <sup>2</sup>	40-45°C,48h+
PET/PE, PA/PE,	Zipper pack	100: 60	1.8-2.2g/ m <sup>2</sup>			40-45°C,36h
	Non-zipper pack		1.8-2.2g/ m <sup>2</sup>			40-45°C,24-36h
PA/RCPP	Boil pack		1.8-2.2g/ m <sup>2</sup>			40-45°C,48h
	Retort pack		1.8-2.2g/ m <sup>2</sup>			40-45°C,72h

Caution: When the ambient humidity is greater than 70% or less than 20%, it is recommended to adjust the ratio. Please contact our technical personnel before adjustment.

#### Laminating Temperature:

please find following different recommended operating temperatures in different processing sections

Item	Temperature ℃	Remark
SF9220A	45~50 ℃	When the temperature is low in winter, the temperature can be
SF9220B	40~45 ℃	appropriately increased
Feeding Tube	45 ℃	Please make adjustments according to the actual situation. For
Transfer Roller	45~50 ℃	example, when high frictional coefficient films are required or PE film
Meter Roller	40~45 ℃	is required to be relatively thin in second laminating, the laminating
Nip Roller	35~45 ℃	temperature can be properly reduced, and the cooling roll can be
Curing Chamber	40~45 ℃	opened if possible. In winter conditions, the cooling roller can be changed to a heating roller, and then the laminated aluminumized films or thick PE films can have good leveling properties.
Curing time	> 24 hours	Boiling resistant structure: > 48 hours Retort resistant structure: > 72 hours pouches or zip pack demand extra 6~12 hours

Caution: When the ambient temperature is lower than  $15 \,^{\circ}$ C, the glue should be preheated in advance and poured into the adhesive cylinder to reach the set temperature before use.

# HUZHOU OCHEM CHEMICAL CO LTD

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## 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 steel barrel normally.

200L barrel or 20L drum; One 20GP container could be loaded with total 16000KGS net weight in total 80 barrels (200L)

#### 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
- The LDPE and CPP films must be corona-treated with a surface tension greater than 40 mN/m. The PA film must be double-corona treated as an intermediate layer. The surface tension of the PET film must not be Less than 52 mN/m.
- When laminating PET printed film, especially when laminating it with metalized film, aluminum oxide, aluminum foil structure, confirm whether the appearance meets the requirements or not with lab test at first
- If the contents of the package are corrosive, please confirm and start production
- The temperature and humidity of the environment have a great influence on the time for storing the configured adhesive. It is recommended to arrange the adhesive in small quantities for a few times in high temperature and high humidity weather to avoid waste
- During the laminating processing, care must be taken to check and control the viscosity.
- Residual adhesive: The remaining adhesive cannot be used in principle. If the amount of residual liquid is excessive, it shall be sealed and stored in cool place after dilution, which could be used as diluent for operation in next day, and a small amount shall be little by little added to the newly prepared adhesive solution. It cannot be used any more, if it appears cloudy, translucent or thickened.
- 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.