

Technical Data Sheet of **SINOHE SIVE® MP2116S-3**

I Product description

Adhesive type **SINOHE SIVE® MP2116S-3** is a kind of moisture curing reactive polyurethane hot melt adhesive, special designed for flat panel lamination in woodworking industry.

Application range

- Flat panel lamination
- Substrates: MDF, Particle Board, PVC foam board, wood plastic board, plywood, etc.
- Foil: PVC, PET, PETG, Paper, ABS, HPL, Aluminum foil, etc.
- Environment: 25—45 °C

Main Features As a high-performance polyurethane adhesive, **SINOHE SIVE® MP2116S-3** has following main features:

- It can be used in high temperature ($\leq 45^{\circ}\text{C}$) and high humidity environment in summer, without worrying about bubbles appearing in the finished product..
- High initial strength, obvious advantages for thicker materials and high rebound materials.
- Excellent weather and chemical resistance: the cured film has excellent heat resistance, cold resistance, water resistance and chemical resistance.
- Excellent health and safety, No harmful substances.

Physical characteristics	SINOHE SIVE® MP2116S-3
Solid content	100%
Component	Polyurethane prepolymer
Status @ 25°C	Light white or light-yellow solid
Density @ 120°C	$1.06 \pm 0.06 \text{ g/cm}^3$
Viscosity @ 120°C	9,000—15,000 mPa.s (Brookfield DV-II, Sp.27, 5RPM)
Open time	About 2 minutes @ 30°C
Shelf life	12 months (Unopened)
Package	55-gallon drum (200Kg/ drum)

II Operating guide

Open for use

- Uncover the lid of the drum or pail; straighten the inner foil bag, cut it along the lower edge of the horizontal sealing of the foil bag, then fold it to the outside of the drum or pail and fasten it with sealing tape. Place it under the heat platen of the unloader machine as soon as possible, and press the platen until the platen completely touches the upper surface of the glue, start to run the pump after the glue be melted by the heat platen, until no bubbles be pumped out.

Preheat

- The preheating temperature of the glue is recommended to be set between 140 and 150 °C. If the ambient temperature is low or the line speed is fast, set it higher. Otherwise, set it lower. Avoid excessive heating.

Substrate pretreatment

- The surface of the substrate used for the bonding part must be clean and dry, so as to ensure that the surface is free of contaminants.
- Polyolefin materials must be corona treated or oxidatively pretreated. PVC and ABS materials must be pretreated with a suitable cleaning or primer.
- If the surface temperature of the substrate is lower than 25 °C, it should be properly preheated to 35°C.

Operation

- Platen, hose and gun of melter: 140—150 °C
- Metering roll (steel) of coater: 160—170°C
- Coating roll (rubber)of coater: 100—120°C
- Reverse roll (steel) of coater: 160—175°C
- Coating Weight : 30 — 50 g/m²
- Pressing pressure: 3—5 kg/cm²
- After coating, shall not exceed the glue open time.

Lamination

- After applying the glue, it should be adhered to the substrate as soon as possible, and the opening time of the glue should not be exceeded.
- While laminating, a suitable pressing device (such as a rubber roller) should be used to apply a certain pressure force to the bonded parts, so that the applied glue can be spread as much as possible and penetrate into the substrate.



Curing

- In order to achieve full cure, the bonded product should be placed at a suitable temperature (25 °C - 38 °C) and humidity (45% - 85% relative humidity).
- The curing process will vary with the thickness of the coating, the moisture content of the substrate, the permeability, the ambient temperature and humidity. It is usually fully cured after about 7 days.

Clean

- It is recommended to clean the roller with our company's special cleaning agent ZC9103(use temperature above 100-140°C).
- After the cleaning is completed, clean the rubber roll with a clean rag dipped in alcohol to extend the service life of the rubber roll.

III Storage / Health & Safety /Transport

Storage

- In the original container that is not opened, the temperature shall be between -30 ° C and 30 ° C. The shelf life of **SINOHESIVE®MP2116S-3** is 9 months.
- Once the original container is opened, the unused parts must be carefully sealed, protected by dry air or nitrogen, and used as soon as possible.

Health & Safety

- **SINOHESIVE®MP2116S-3** is a polymer with a certain activity. It is recommended not to have long-term direct contact with the skin. In addition, since the polymer will crosslink with moisture in the air to cure, it should be cleaned prior to curing.

Transport

- Refer to the Material Safety Data Sheet (MSDS) for details.

IV Other

Disclaimer

- The performance of the glue is a critical factor in the final performance of the product, but it is not the only factor. For example, the strength of the substrate, the moisture content, the grease on the surface, etc. can also affect the strength; the temperature and humidity in the curing environment, the water permeability and the gas permeability of the substrate can affect the curing speed and the appearance of the product. Since the above factors are beyond our control when using our glue products, we cannot guarantee the quality of bonding for each specific final product. We solemnly recommend that before batch production, please select the equipment, substrate and operators, and do tests with our glue





products adequately, and determine the next action plan based on the test results, and then gradually enlarge the batch size.

Technical Support

- If you need to know more about this product or other products, process, new product development of our company, please contact our technical support team or business team in local.

URL

- www.sino-adhesive.com

