

Technical Data Sheet of **SINOHESIVE®MP2116**

I Product description

Adhesive type **SINOHESIVE®MP2116** is a 100% solid, moisture-curing polyurethane hot melt adhesive. Its melt chemically reacts with and physically penetrates the surfaces of common substrates (wood, PET, impregnated paper, etc.), forming superior bonding strength after curing.

Application range Lamination for flat panel, sponge fabric.
Suitable for bonding PET, PVC, CPL, acrylic, and fiberglass sheets to substrates such as MDF, particleboard, melamine board, and honeycomb panels.
The suitable ambient temperature (board temperature) is 20 ~ 35 °C.

Main Features As a high-performance polyurethane adhesive **SINOHESIVE®MP2116** has following main features:

- **High Initial Tack:** Resists rebound when laminating thick films/sheets.
- **Broad Substrate Compatibility:** Delivers excellent adhesion to most common substrates.
- **Exceptional Weather Resistance:** Cured adhesive exhibits outstanding resistance to heat, cold, water, and chemicals.
- **Excellent Health & Safety Profile:** Completely free of harmful aldehydes, ketones, benzenes, hydrocarbons, esters, or related compounds.

Physical characteristics	SINOHESIVE®MP2116
Solid content	100%
Component	Polyurethane
Status @ 25°C	Off-white/Beige solid
Density @ 120°C	1.06g/cm ³
Viscosity @ 120°C	13,000—20,000 mPa.s (Brookfield DV-II, Sp.27, 5RPM)
Melt temperature	135—150°C
Apply temperature	110—140°C
Open time	About 2 minutes @ 25°C
Shelf life	(Unopened) 12 months
Package	Standard 5-gallon pail or 55-gallon 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 135 and 145 °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.
- Coating weight**
- It is recommended that the coating weight be between 30 — 120 g/m²
- 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 (20 °C - 32 °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**
- If the glue is applied by slot die, when the production is stopped, grease or wax should be used to seal the slot die; If roller coating is adopted, it is recommended to clean the roller with our company's special cleaning agent ZC9103(use temperature above 100-140°C).
 - Spilled and dripped glue should be cleaned with a rag dipped with organic solvent as early as possible before it is cooled and uncured; the



glue after curing will be difficult to remove, and can be scraped off with a hard tool or immersed in solvent with strong causticity for a long time.

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®MP2116** is 12 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®MP2116** 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

