

Technical Data Sheet for *SINOHESIVE® EA5816-5*

I Product description

Adhesive type *SINOHESIVE® EA5816-5* is a kind of polyurethane prepolymer with a solid content of 100%. It is in solid state at room temperature and can be melted by heating. Its melt can be applied on the surface of the substrate by various coating methods such as spray, shot, gravure, roll coating. By bonding with another substrate, an initial adhesive force of higher strength can be obtained immediately; In the case of moisture in the air or moisture in the substrate, it can further react with the surface of the substrate to form a strong and tough thermosetting substance after curing.

Application range

- Bonding, fixing or assembly of inorganic materials
- Suitable substrates include: glass, ceramic, plastic, metal, wood etc.
- Recommended to use at room temperature of 20 - 38 °C

Main Features As a high-performance PUR adhesive *SINOHESIVE® EA5816-5* has following main features:

- High initial adhesion: easy to reliable and stable production.
- Fast setting time: easy to assemble and fix quickly.
- Excellent weather resistance: the solidified colloid can withstand high and low temperature, blister and other conditions.
- Environmental safety and health: completely free of aldehydes, ketones, benzene, hydrocarbons, esters and other harmful substances

Physical characteristics	<i>SINOHESIVE® EA5816-5</i>
Solid content	100%
Component	Polyurethane prepolymer
Status @ 25°C	White or light yellow solid
Density @ 130°C	1.08 ± 0.06 g/cm ³
Viscosity @ 130°C	4,900 ~ 8,400 mPa.s
Application temp.	130 ~ 150 °C
Open time	About 1 ~ 5 min @30°C (Depends the size of bead line)
Shelf life	(Unopened) 12 months
Package	200Kg /drum or 20Kg / pail

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 130 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

- Various pollutants such as oil, dust, and water droplets on the surface of the substrate will affect the final bonding performance. Therefore, the surface of the substrate must be clean and dry to ensure that the surface is free of contaminants.
- The surface tension of the substrate shall be greater than 36 dyne.
- It is not suitable for the bonding of non-polar materials such as PP and PE that have not been pre-treated

Coating weight

- Adjust the coating weight according to the specific application scenario, taking into account the type of application, the running condition of the equipment, downstream customer requirements, cost and other factors.
- Customers are advised to find out the best coating weight through adequate testing before mass production, in order to achieve the best balance between bonding performance and cost.

Assembly

- After gluing, assembly or fitting should be completed as soon as possible and should not exceed the opening time of the glue. Although the opening time is usually about 1 to 5 minutes, the earlier the assembly, the easier it is to obtain reliable bonding;
- opening time will be affected by coating temperature, coating thickness, substrate temperature, ambient temperature and other aspects;

Curing

- In order to achieve full cure, the bonded product should be placed at a suitable temperature (above 25 °C) and humidity (above 50% RH).
- 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 use the special cleaning agent ZC9105 (see its TDS and MSDS for details) for cleaning the melting glue equipment.



- 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

- This product should be stored in a cool and dry environment, away from direct sunlight, waterproof and moisture-proof. Store at room temperature below 35 °C and away from heat source.

Shelf life

- In the original container that is not opened, the temperature shall be between -30℃ and 30℃. The shelf life of **SINOHESIVE® EA5816-5** 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® EA5816-5** 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 cross link 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.





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