

# TONGXUE ADHESIVE -GLUE CATALOGUE



Anthony Young/Director

**Foshan Tongli Building Materials Technology Co.Ltd.**

**Chongqing Tongxue Science & Technology Co., Ltd.**

**ADD:** Business Mansion B1, XBV-Xiantao International Big data Valley, Yubei District, Chongqing, China

**Whatsapp & Mobile:** +86133330333903

**Wechat:**



**Tel.:** 0086-23-81150015

**Email:** info@adhesive-glue.com

**Web:** www.adhesive-glue.com

Copyright © 2019 Tongxue. All rights reserved.

**Special Declaration: Chongqing Tongxue Science & Technology. Ltd**

reserves the right to change the specifications, appearance and design without notice.

### 7.3. Epoxy Composite Adhesive F108



#### Product introduction:

F108 modified epoxy composite adhesive is a high performance two-component solvent-free structural adhesive. It is formaldehyde-free, benzene-free, safe and environmentally friendly. Because it is obtained by modifying epoxy resin, it has good toughness, high bonding strength, long construction time, easy to squeegee, impact resistance, high and low temperature freeze-thaw cycle aging, high temperature aging resistance, Resistant to heat and humidity aging, acid and alkali corrosion and many other advantages. The main agent (A) and the curing agent (B) are mixed by weight ratio A:B=2:1

Due to its good high and low temperature resistance, it can be used at  $-40^{\circ}\text{C}$  -  $120^{\circ}\text{C}$ , above  $120^{\circ}\text{C}$  is not recommended for long-term use. It can be applied to the paint spraying line cured at  $220^{\circ}\text{C}$  by the production practice test, and the mechanical properties will not be greatly reduced. Due to its excellent high temperature resistance and moist heat resistance, it can also be used in high temperature and high humidity places for a long time, such as shower rooms and toilets.

#### Scope of application:

Mainly used for bonding various sandwich composite boards (such as aluminum honeycomb panels, aramid paper honeycomb panels, plywood, fireproof panels, etc.), widely used in the middle roof of high-speed rail and subway, square cabin, ship interior partition, metal composite panel curtain wall Etc., excellent adhesion to metals, wood, stone, ceramics, glass, etc.

For PP, PE, PET, PS, PVC and other common plastics, it is difficult to form a good bond. It can not be used directly. It needs to be surface treated and activated before bonding. Other types of plastics are difficult to determine accurately because of their variety, and the composition may be slightly different, resulting in different bonding effects. To use this product, please perform sample bonding beforehand to determine whether the adhesive is suitable.

**Technical parameters (the following parameters are tested at 23-25 °C)**

| Indicators                           | Component A   | Component B                |
|--------------------------------------|---|----------------------------|
| State                                | Fluid   | Viscous fluid              |
| Color                                | White   | Beige                      |
| Density (g/cm <sup>3</sup> )         | 1.43±0.03g/cm <sup>3</sup>  | 1.14±0.03g/cm <sup>3</sup> |
| Viscosity                            | 15000±2500mPa·s   | 20000±4000mPa·s            |
| Mixing ratio (by weight)             | 2 : 1   |                            |
| Mixed density                        | 1.29±0.05g/cm <sup>3</sup>  |                            |
| Usage time                           | 30--40 minutes (90g mixed evenly) can be adjusted according to production needs |                            |
| Mixed state                          | Easy to apply scraping fluid  |                            |
| Sizing amount                        | 350 -500g/m <sup>2</sup>  |                            |
| Initial adhesion formation time:     | 7-8 hours   |                            |
| Full adhesion formation time         | 5-7 days  |                            |
| No exothermic peak                   | 20 days   |                            |
| Glass transition temperature Tg      | 80--85℃   |                            |
| Roller peel strength                 | >60(N.mm)/mm  |                            |
| Steel shear strength:                | >17MPa  |                            |
| Plane tensile strength               | >3MPa   |                            |
| Hardness (Shao D):                   | 80  |                            |
| Environmental performance:           | TB 3139/GB18583   |                            |
| Applicable temperature after curing: | -40--120℃   |                            |

**Precautions:**

1. Before mixing the mixture, separately mix the main agent (A) and the curing agent (B) in the barrel as appropriate.
2. When using, the amount of glue should not be too much, so as to avoid accelerated heating due

to exothermic reaction, shorten the pot life, and make the unused glue quickly thicken and solidify in the barrel, resulting in waste.

3. Pay attention during use, pay attention to ventilation on site, avoid direct contact with uncured glue, so as to avoid skin allergies. Wear protective gloves.

4. The main agent and curing agent will become viscous when it is below 15 °C. It must be heat treated (heating temperature is 40-50 °C) to make it have certain fluidity for construction.

5.F108 can be used at room temperature; below 15 °C, the curing speed is slow and the curing is incomplete. It is not recommended when the bonding strength is high (if you want to speed up the curing speed, it can be heated and cured); it can be heated and cured, 60- The curing time is 70 minutes at 70 ° C and 20-30 minutes at 80 ° C. Heat curing helps the epoxy adhesive to cure completely and improve the bonding strength.

6. The bonded substrate must be surface treated: degreasing, drying, dust removal (and other contaminants), rust removal, such as: must be polished before use to remove the oxide film on the surface of the aluminum, and Pay attention to the timeliness of the current grinding; or purchase the epoxy-coated aluminum plate; if the conditions and requirements can be anodized, the primer or anodizing can significantly improve the bonding strength and durability.

7.F108 must be mixed according to the mass ratio A:B=2:1. Mix the glue evenly (the A and B glues are mixed and the color is no longer changed). The machine speed should not be too fast when stirring. It is recommended to use The speed control mixer is controlled at 60-80r/min, and then the evenly mixed gel is coated, smoothed and smoothed on the required plate with a scraper. The amount of glue is 0.35-0.5kg/m<sup>2</sup> (according to the bonding parts) The difference is that the recommended amount of honeycomb panel is 0.45-0.5kg/m<sup>2</sup> on one side; the bonded parts should be pressed and cured under the pressure of 0.5kg/cm<sup>2</sup>.

8. Storage must be in a dry indoor environment, protected from light, the original packaging should be sealed and moisture-proof after opening. It is recommended to store the temperature at 15-35 °C; avoid storing in direct sunlight, high temperature, below 15 °C, frost, humid environment. .

9. Shelf life: 12 months in original packaging.

1. Packing: main agent (A) 20 kg plastic drum, curing agent (B) 10 kg plastic drum, can also be canned according to customer requirements.