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

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7.5. Polyurethane Composite Adhesive J301



Product introduction:

J301 is a two-component polyurethane structural adhesive. The A component is mainly composed of various polyols, adhesion enhancers and fillers. It has a white to pale beige viscous fluid and has certain thixotropic properties. The B component is mainly polymerized. MDI, a dark brown transparent slightly viscous liquid.

Scope of application:

The adhesive is mainly used for the bonding of aluminum (paper, aramid) honeycomb panels, corrugated panels, various sandwich panels, cabinet panels, ecological panels (melamine panels), sandwich composite doors, etc., and can also be used for various metals, wood, Composite bonding of decorative materials such as porcelain tiles, polished tiles, stone, glass, etc. This product is easy to use, because of its low viscosity, it is suitable for blade coating in all directions, easy to operate. Curing does not shrink, and after curing is complete, the bonding strength is high, the toughness is good, the vibration fatigue resistance (buffer damping effect is good), the corrosion resistance, the water resistance, the high and low temperature cycle aging, the high temperature aging resistance, and the damp heat aging resistance.

Due to its good high and low temperature resistance, it can be used for a long time at -40 $^{\circ}$ C - 80 $^{\circ}$ C, higher than 80 $^{\circ}$ C is not recommended for long - term use. It can be applied to the fluorocarbon paint spraying line cured at 220 $^{\circ}$ C by the production practice test, and the mechanical properties will not be greatly reduced.

It has certain heat and humidity resistance, but it is recommended to use our modified epoxy compound adhesive in the environment of high temperature and high humidity for a long time.

It is recommended to use a component that has been subjected to vibration for a long time, such as a sandwich composite door.

For PP, PE, PET 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 various types, and the ingredients 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.

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Technical Parameters (the following parameters are tested at 25-28 °C)

| Indicators | Component A | Component B | After mixing |
|--------------------|----------------------------------------------------------------------------------------|-------------------|-----------------------|
| Color | White to light | Dark brown | Beige |
| | beige | | |
| Density (g/cm3) | 1. 56 ± 0. 05 | 1.23 ± 0.02 | 1. 45 ± 0. 05 |
| Viscosity (m Pa. | 17500 ± 2500 | 200 ± 40 | |
| s) ` | | | |
| State | Slightly | Fluid | Slightly |
| | thixotropic fluid | | thixotropic fluid |
| Mixing ratio (by | 5: 1 | | |
| weight) | | | |
| | After | mixed | |
| Valid period | 30 ∼40 min | | |
| Recommended | Within 35 minutes (ie from the start of mixing to the | | |
| operating time | completion of coating) | | |
| Construction | 5 -35 °C, humidity 0- 65 % | | |
| environment | | • | |
| requirements | | | |
| Initial adhesion | 5 - 6 hours (25 ° C) / 60 minutes (at 65 ° C) | | |
| formation | | | |
| Completely cured | 1 to 2 days (normal temperature) / 24 hours (after 60 minutes of incubation at 60 ° C) | | |
| | | | |
| Shear strength | 13-15MPa (60°C for 60 minutes, 25°C for 3 days) | | |
| (MPa) | | | |
| Honeycomb | Greater than 60 N | | |
| roller peel | | | |
| strength | | | |
| Hardness (Shao | | 63 | |
| D) | | | |
| Applicable | -40°C to 80°C | | |
| temperature | | | |
| range | | | |
| Environmental | GB18538 / TB 3139 | | |
| testing (VOC | | | |
| emissions) | | | |
| Note: The standard | ls cited in the above | mechanical proper | ties test: GB/ T 7124 |

Note: The standards cited in the above mechanical properties test: GB/ T 7124 - 1986 Determination of tensile shear strength of adhesives (metal to metal)

Precautions:

- 1.Stir the A component as appropriate before mixing.
- 2.The amount of adhesive should not be too much, so as to avoid accelerated curing due to exothermic reaction, shorten the pot life, and make the unused glue quickly thicken and solidify in the barrel, resulting in waste.
- 3.In the bonding process, the free water should never be contacted. The water will cause the

polyurethane to generate gas, which will cause foaming, which will lead to the decrease of strength, which will affect the bonding quality. If the air humidity is too high, it should also pay attention to whether or not foaming occurs. Stop using; if the substrate to be adhered has water or moisture, please wipe it or dry it before continuing to use it.

4.J301 can be used at lower temperatures. The curing speed is slower at 10 °C (if you want to speed up the curing speed, it can be heated and cured); it can also be heated and cured, 60 °C curing time 50--60 minutes, 80 °C curing time For 15-20 minutes.

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

6.J301 must be mixed according to the mass ratio A:B=5:1, and mix 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 a speed mixer and the speed is controlled at 100r/min. Then, the evenly mixed gel is coated, smoothed on the required plate with a scraper. The amount of glue is 0.4-0.5KG per square meter

- 7. The uncured adhesive can be removed by special cleaning agents such as acetone and butyl acetate. The cured adhesive can only be removed by mechanical methods or high temperature softening combined with mechanical methods.
- 8.The storage must be in a dry indoor environment, protected from light, and the original package should be sealed and protected from moisture after opening. If not, cover the cover immediately. Recommended storage temperature 15-35 ° C; avoid direct sunlight, high temperature, below 15 ° C, frost, humid environment

Storage method:

Weather it is afraid of freezing: Yes

Key points: Moisture proof

Storage temperature: at room temperature (recommended: about 25 degrees), when the storage temperature is too high, the reaction speed is fast after the glue is mixed, and the operation time is short; the temperature is too low, the viscosity is thickened, and the mixing and scraping are laborious.

Validity: 12 months under the original packaging.

Package:

Barrel: 25 kg (Part A), 5 kg (Part B)

can be packed according to customer's specific requirements.

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