SDF14167 MMA 5 MIN
Technical datasheet

Description & Application

SDF14167 multifunctional structural adhesive is an improved non-corrosive, halogen-free two-component methyl methacrylate adhesive, which can be used to bond metals and engineering plastics without primer and minimal surface treatment as well as composite materials and have excellent performance.

Advantages

Rapid curing at room temperature.
Self-priming effect on metal
High toughness
High strength
Minimal surface preparation

Product data

	SDF14167 A	SDF14167 B	Mixed Adhesive
Appearance	*Skin*	*Blue*	*Green*
Specific gravity	*0.96*	*1.07*	*1.05*
Viscosity at 25°C (Pa.s)	*100,000-130,000*	*15,000-35,000*	
Mixing Ratio (weight)	*100*	*10*	
Pot life at 25°C (100gr)			*3-5min*
Curing Conditions (2gr)			*5min at* 25°C
Gap Fill			*6mm*

Processing

Working environment: Please keep the plastic container clean. The A and B components must be accurately weighed according to the weight ratio and accurately weighed. Stir thoroughly clockwise along the inner wall of the container and let it stand for 3-5 minutes before using.
Adjust the amount of glue according to the operating time and dosage to avoid waste. When the temperature is lower than 15 ℃, please preheat A glue to 30 ℃ before adjusting the glue, which is easy to operate (A glue will thicken when the temperature is low); After use, the bucket lid must be sealed to avoid product scrap due to moisture absorption.
When the relative humidity is greater than 85%, the surface of the cured product easily absorbs moisture in the air and forms a white mist. Therefore, when the relative humidity is greater than 85%, it is not suitable for normal temperature curing. It is recommended to use temperature curing.

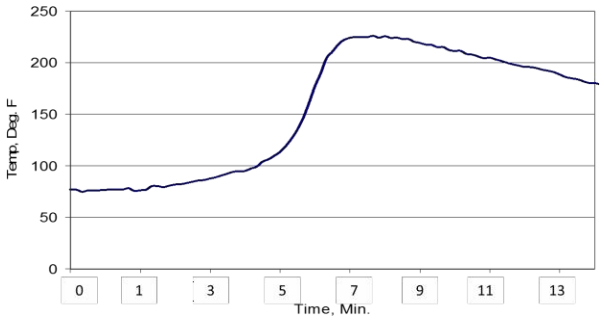
Recommended Surfaces

Metal	Al, Mg, Stainless Steel, CRS
Plastic	ABS, PC, PVC, Acrylics
FRP	VE, DCPD modified Polyester, Epoxy

Lap Shear Strength

ABS (SF)	*6.1 mPa*	*ASTM D 1002 23°C*
PCc (SF, CF)	*10.3 mPa*	*ASTM D 1002 23°C*
Aluminum 6061d (CF)	*17.1 mPa*	*ASTM D 1002 23°C*
Aluminum 6061d (CF)	*6.8 mPa*	*ASTM D 1002 82°C*
Aluminum l 6061d (CF)	*73.6 N/10mm*	*ASTM D 1876 23°C*

Exothermic curve



The figure below shows the exothermic curve at 23°C with a volume ratio of 10:1 and a weight of 10gr.

Chemical resistance

Hydrocarbons
Acids and bases (3-10 pH)
Saline solutions are not resistant to:
Polar solvents
Strong acids and bases

Cleaning

Wipe surface with solvent to clean all heavy oils, or use industrial cleaning equipment. In the range of 1-35°C, manual and pneumatic glue guns can be used for dispensing, and the needle and the substrate are at a 45° angle.
For uncured products, alcohol cleaning can be used. Once the product is cured, it can only be removed by mechanical cleaning.

Storage

Store this product in a cool, dry, ventilated environment away from heat sources. Optimum storage temperature is 10 °C and 32 °C. Do not return unused product to original container.

Precaution

Please refer to the product MSDS before using the product. The following is the description of the above test method:

1. It is strongly recommended that all substrates be tested for stability in the recommended environment of use. For persistently heavily corroded metals, use BK120 for stability and performance.

2. Operating time: refers to the time from the beginning of mixing of components A and B to complete mixing, and the adhesive cannot be operated again in a gap of about 0.25in. The time is tested at 23°C

3. Reinforcement time: It is determined by the ambient temperature, bonding thickness and the characteristics of the substrate. Generally, at 23°C PC (ASTM D1144), volume ratio 10:1, and 0.012in. gap, it can reach 500psi in 9 minutes and 1000psi in 10 minutes. Substrate, temperature, and clearances will affect curing time.

4. Although not necessary, it is still recommended to remove oxides from the surface of the substrate when used.

5.(a) Tensile shear and T-peel curing conditions: room temperature for 4 hours, then 45°C 16 hours, and finally 4 hours at room temperature. The stretching speed of cross stretching is 6.0.05in./min, and the stretching speed of lap shearing is 0.5in. No surface treatment is required, the standard for tensile shear is ASTM D1002, and the standard for T-peel is 8. ASTM D 1876. SF-substrate failure; CF-cohesive failure; AF-interfacial failure. (b) ABS is 0.116 in. thick, (c) PC is 0.096 in. thick (d) AL 6061 is 0.058 in. thick, (e) AL 6061 is 0.029 in. thick in a single bond line above, the exothermic temperature is lower than that shown in the picture.

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