

Adhesive UC-26B for KYOWA Strain Gages

INSTRUCTION MANUAL

Thank you for purchasing this KYOWA product. Before using it, please read this instruction manual carefully. Also, keep the manual within easy reach so that you can refer to it whenever necessary.

1. Safety precautions

Be sure to observe the following safety precautions when using the adhesive.



Warning! This warning applies where improper handling may cause serious injury to the operator.

- Keep the adhesive out of the mouth, or serious injury may occur. If swallowed, vomit the adhesive by immediately drinking copious amount of water, then see a physician.
- Keep the adhesive out of the eyes, or serious damage may occur. If the adhesive gets in the eye, immediately wash the eye with water, then see an eye doctor. Use eye-glasses or other eye protector if necessary.
- Avoid handling the adhesive near fire, or it may ignite.



Caution! This caution applies where improper handling may cause deleterious effects to the operator's body or cause material damage.

- Keep the adhesive out of children's reach.
- Avoid skin contact with the adhesive, or a rash may develop. If it gets on the skin, immediately wash it off. Use gloves or other protector if necessary.
- While handling the adhesive, maintain proper ventilation, or it may irritate eyes, nose or throat.
- Disposal of the adhesive should be handled by a qualified industrial waste disposal agent, as industrial waste.

2. Outline of product

Composed of two ingredients A and B, UC-26B is the polyurethane adhesive which cures at room temperatures. This low-temperature adhesive for KFL strain gages features a high viscosity, making it especially suitable for bonding strain gages onto porous subjects such as wood, mortar, concrete and composite materials.

3. How to use

■ Surface preparation

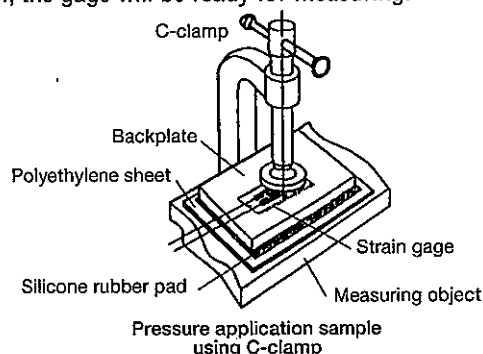
- (1) Using a sander, wire brush, etc., remove rust, paint, oxidized coat and cement powder from the surface of measuring object.
- (2) Using sandpaper (#300 to 600), finish the surface flat and smooth.
- (3) To clean the surface, wipe in one direction only with industrial tissue slightly dampened with a solvent (such as acetone, isopropanol, etc.).
- (4) Using a lead pencil (HB to 4H), scribe the gage guidelines on the bonding surface of measuring object.

■ Bonding a strain gage

- (1) Take proper amounts of ingredients A (main transparent ingredient) and B (brown curing ingredient) in a stirring dish at the ratio indicated below, then stir them thoroughly.

A:B = 100:25 (weight ratio)

- (2) Apply the mixed adhesive thinly onto the measuring object and the back of strain gage.
- (3) Place the gage in place, align the gage's center mark with the guideline on the measuring object, cover the gage surface with a polyethylene sheet, then squeeze excessive adhesive out by pressing with the finger. You may prevent the gage from moving at that time by fixing the edge of gage base with adhesive tape or the like.
- (4) Apply a pressure of 30 to 50kPa (reference value: 0.3 to 0.5kgf/cm²) to the gage installation via a cushion such as silicone rubber (see the figure below).
- (5) After keeping the gage installation under this condition for 24 hours at room temperature (20°C), remove pressure and keep the gage installation as it is for additional 24 hours. Then, the gage will be ready for measuring.



■ Other handling precautions

- (1) If the temperature of bonding part is low, curing will be delayed. In such a case, ensure a longer pressure application time (e.g. 48 hours in the case of 10°C).
- (2) Weigh ingredients A and B as precisely as possible by using a balance.
- (3) Store UC-26B at temperatures below 10°C and avoid direct sunlight.

4. General characteristics of UC-26B

Composition	Ingredient A: Urethane resin, epoxy resin, methyl ethyl ketone, ethyl acetate Ingredient B: Amine compound (containing 8.8% meta-xylylenediamine)
Appearance	Ingredient A: Colorless transparent, viscous liquid Ingredient B: Light yellow, viscous liquid
Operating temperature after curing	-196 to +50°C
Dilution agent	None

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