



Strain Gauge Adhesives



| Type | Contents | Component | Applicable specimen | Operating temperature | Curing temperature and time | Shelf life |
|--------|-----------------------|---------------|------------------------------|-----------------------|--|------------|
| CN | Single 2g x 5 | Cyanoacrylate | Metal, Plastics Composite | -196~+120°C | Room temperature 20sec.~1 min. (thumb pressure) | 6 months |
| CN-E | Single 2g x 5 | Cyanoacrylate | Concrete Mortar, Wood | -30~+120°C | Room temperature 40sec.~2 min. (thumb pressure) | 6 months |
| CN-R | Single 2g x 5 | Cyanoacrylate | Metal, Plastics Composite | -30~+120°C | Room temperature 10~30sec. (thumb pressure) | 3 months |
| CN-Y | Single 2g x 5 | Cyanoacrylate | Metal, Plastics Composite | -30~+80°C | Room temperature 60 sec.~2 min. (thumb pressure) | 6 months |
| P-2 | A: 25g * B: 3g * | Polyester | Metal | -30~+180°C | Room temperature Pressure 50~300kPa 2~3 hrs. | 6 months |
| RP-2 | A: 25g * B: 3g * | Polyester | Concrete Mortar | -30~+180°C | Room temperature Pressure 50~300kPa 2~3 hrs. | 3 months |
| PS | A: 25g * B: 3g * | Polyester | Concrete Mortar Wood | -30~+100°C | Room temperature 2~3 hrs. | 3 months |
| NP-50B | A: 25g * B: 3g * | Polyester | Metal Composite | -30~+300°C | Room temperature Pressure 50~300kPa 16 hrs. | 6 months |
| C-1 | Single 25g * | Phenol | Metal | -269~+200°C | Pre-curing at 130°C 1 hr., pressure 200~300kPa. Post-curing at 200°C 1 hr. without pressure | 3 months |
| EA-2A | A: 25g * B: 15g * | Epoxy | Metal, Concrete Composite | -269~+50°C | Pressure at 50~300kPa. Room temperature 1 day, or at 50°C 2 hrs. | 3 months |
| EB-2 | A: 10g x3 B: 3g x3 | Epoxy | Metal Composite | -60~+200°C | Room temperature 1 day Pressure 50~200kPa. | 3 months |
| A-2 | A: 25g * B: 5g * | Epoxy | Bolt | -30~+100°C | Room temperature 12 hrs. and 140°C 3 hrs. | 3 months |

NB: Shelf life

Effective storing duration on condition that the adhesive is properly kept in a cool, dry and dark place such as a refrigerator (+5~+10°C, do not store in a freezer).

Thumb pressure 100~300kPa

SDS : Safety Data Sheet

TML supplies SDS for all its strain gauge adhesives and coatings. Contact your TML supplier for more information.

For two-component adhesives, use the supplied mixing vessels.

Mixing vessels: Polyethylene make
75mm-diameter, 10mm depth

* : These contents are for outside Japan.



PS

NP-50B

C-1

EA-2A

EB-2

A-2

Applications

Single component adhesive for strain gauges. The time required to bond the gauge is extremely short and handling is very easy. The thin bonding layer allows adhesion to plastic objects as well as metal.

Measurement of large strain (post-yield measurement) is possible until the next day of bonding of the strain gauge.

Note) Use protective eyewear when using this adhesive.

Single component adhesive featuring high viscosity for bonding strain gauges to porous materials such as concrete and mortar.

Note) Use protective eyewear when using this adhesive.

Single component adhesive for accelerating cures in lower ambient temperature, or lower relative humidity.

Note) This adhesive is sold only for a limited time. (from October to the next April)

Note) Use protective eyewear when using this adhesive.

Single component adhesive designed exclusively for use on post-yield strain gauge. Offers minimum degradation in bonding performance (peel strength) due to aging. Suitable when a large strain measurement is made after a few days or more of bonding the strain gauge.

Measurement of large strain (post-yield measurement) is possible even after one year of bonding.

Note) Use protective eyewear when using this adhesive.

Two-component room-temperature-curing polyester adhesive for bonding PF, P and F series strain gauges. Put the necessary quantity of drug A in the supplied mixing vessel, then add drug B by drops to total 2~6% in weight of drug A. Use the mixed adhesive within 10~20 minutes.

Two-component room-temperature-curing polyester adhesive for bonding PF and P series strain gauges. The mixing procedure is the same as above for P-2 adhesive. Put the necessary quantity of drug A in the supplied mixing vessel, then add drug B by drops to total 2~4% by weight of drug A. Use the mixed adhesive within 10~20 minutes.

Two-component room-temperature-curing polyester adhesive. Use as a surface precoating agent for bonding P and PF series gauges to concrete and also as an adhesive for WFLM series gauges. The special filler contained exhibits alkali resistance and effectively shuts off moisture and gas from inside of the concrete. Its high viscosity enables use on vertical walls or ceilings.

Two-component room-temperature-curing polyester adhesive for bonding QF, ZF and BF series strain gauges. Put the necessary quantity of drug A into the supplied mixing vessel then add drug B by drops to total 3~4% by weight of drug A. Use the mixed adhesive within 5~20 minutes.

Single-component heat-curing type adhesive. For use on strain gauges that are suited to heat curing. Enables reliable measurement for long periods and in high temperature up to 200°C.

Two-component room-temperature-curing epoxy adhesive for bonding CF series strain gauges for use in temperature from cryogenic (-269°C) up to 50°C.

Two-component room-temperature-curing epoxy adhesive for bonding strain gauges for use in temperature from -60 to +200°C. Enables stable measurement for a long period of time.

Two-component heat-curing epoxy adhesive for bonding BTM strain gauges.



Important point

- In general, curing time of an adhesive called "room temperature curing type" is largely affected by environmental conditions such as temperature and humidity. Referring to the curing conditions described in the supplied operation manual, it is recommended to carry out a "test curing" on the site.
- A trace of water in the air is required to cure the CN adhesive (cyanoacrylate). Therefore the curing time is largely affected by humidity rather than temperature.