

STRAIN GAUGE ADHESIVES



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Type		Contents	Component	Applicable specimen	Operating temperature	Curing temperature and time	
CN	Single component Room-temperature-curing	Single 2g x 5	Cyanoacrylate	Metal, Plastics Composite	-196~+120°C	Room temperature 20sec.~1 min. (thumb pressure)	
CN-E	Single component Room-temperature-curing	Single 2g x 5	Cyanoacrylate	Concrete Mortar, Wood	-30~+120°C	Room temp. 40sec.~2 min. (thumb pressure)	
CN-R	Single component Room-temperature-curing	Single 2g x 5	Cyanoacrylate	Metal, Plastics Composite	-30~+120°C	Room temp. 10~30sec. (thumb pressure)	
CN-Y	Single component Room-temperature-curing	Single 2g x 5	Cyanoacrylate	Metal, Plastics Composite	-30~+80°C	Room temperature 60 sec.~2 min. (thumb pressure)	
P-2	Two-component Room-temperature-curing Mixing ratio: 2~6%	A: 25g * B: 3g *	Polyester	Metal	-30~+180°C	Room temperature Pressure 50~300kPa 2~3 hrs.	
RP-2	Two-component Room-temperature-curing Mixing ratio: 2~4%	A: 25g * B: 3g *	Polyester	Concrete Mortar	-30~+180°C	Room temperature Pressure 50~300kPa 2~3 hrs.	
PS	Two-component Room-temperature-curing Mixing ratio: 2~4%	A: 25g * B: 3g *	Polyester	Concrete Mortar Wood	-30~+100°C	Room temperature 2~3 hrs.	
NP-50B	Two-component Room-temperature-curing Mixing ratio: 3~4%	A: 25g * B: 3g *	Polyester	Metal Composite	-30~+300°C	Room temperature Pressure 50~300kPa 16 hrs.	
C-1	Single component Heat-curing	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	
EA-2A	Two-component Room-temperature-curing Mixing ratio: 2:1	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.	
EB-2	Two-component Room-temperature-curing Mixing ratio: 10: 3	A: 10g x3 B: 3g x3	Epoxy	Metal Composite	-60~+200°C	Room temperature 1 day Pressure 50~200kPa.	
A-2	Two-component Heat-curing Mixing ratio: 10: 1	A: 25g * B: 5g *	Epoxy	Bolt	-30~+100°C	Room temperature 12 hrs. and 140°C 3 hrs.	

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

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.

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

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

* : These contents are for outside Japan.





	Shelf life	Applications
	6 months	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. Curing time under normal conditions is 20~60 seconds.
	6 months	Single component adhesive featuring high viscosity for bonding strain gauges to porous materials such as concrete and mortar. Curing time under normal conditions is 40~120 seconds.
	3 months	Single component adhesive for accelerating cures in lower ambient temperature, or lower relative humidity. Curing time under normal conditions is 10~30 seconds.
	6 months	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. Curing time under normal conditions is 60~120 seconds.
	6 months	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 5~15 minutes.
	3 months	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.
	3 months	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. 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.
	6 months	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.
	3 months	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.
	3 months	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. Mix the necessary quantity of drugs A and B at the weight ratio of 2 to 1.
	3 months	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. Mix the necessary quantity of drugs A and B at the weight ratio of 10 to 3.
	3 months	Two-component heat-curing epoxy adhesive for bonding BTM strain gauges. Mix the necessary quantity of drugs A and B at the weight ratio of 10 to 1, then pour the mixed adhesive into a hole drilled on the bolt in which the gauge is inserted. Keep at room temperature for 12 hours, then cure at 140°C in furnace for 3 hours.

SDS : Safety Data Sheet

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

