

Technical Data Sheet

3M™ Scotch-Weld™ Instant Adhesive CA4

Product Description

3M™ Scotch-Weld™ Instant Adhesives are single component, high strength cyanoacrylate adhesives.

3M™ Scotch-Weld™ Instant Adhesive CA4 is a high-strength, very fast setting, multi-purpose cyanoacrylate adhesive that cures at room temperature with very low bonding pressures. It has particularly good adhesion to most cured rubbers.

Product Features

- One component, high strength adhesives that cure at room temperature.
- Products provide varying cure times, bond strengths, and viscosities.
- Can be used to bond a variety of substrates including many rubbers, plastics, and metals.
- Economical to use as it requires only drops of adhesive to provide strong bonds to many metals, plastics, and rubbers.

Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Uncured Physical Properties

Property
Values
Additional Information

Color

Clear

View 

Viscosity

150 cP

Base

Ethyl

Net Weight

8.7 lb/gal

Typical Mixed Physical Properties

Property
Values
Additional Information

Time to Handling Strength

5 to 40 s

Typical Performance Characteristics

Property
Values
Additional Information

Long Term Temp C

-82 °C

View 

Minimum Long Term Temperature Resistance

-54 °C

Long Term Temp F

180 °F

View 

Minimum Long Term Temperature Resistance

-65 °F

Typical Physical Properties

Property
Values
Additional Information

Specific Gravity

1.05 g/mL

Storage and Shelf Life

Store in original containers at or below 80°F (27°C).

These products can be expected to have a shelf life of at least 15 months from date of manufacture. At lower temperature, the shelf life will be longer. Lower temperatures cause increased viscosity of a temporary nature and also will cause water to condense on the container. Therefore, containers stored at low temperatures should be allowed to return to room temperature before opening so that water does not come in contact with the adhesive and cause adhesive gelation.

Automotive Disclaimer

Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, including, but not limited to, automotive electric powertrain battery or high voltage applications. This product does not fully adhere to typical automotive design or quality system requirements, such as IATF 16949 or VDA 6.3. This product may not be manufactured in an IATF certified facility and may not meet a Ppk of 1.33 for all properties. The product may not undergo an automotive production part approval process (PPAP). Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's automotive application and for conducting incoming inspections before use of the product. Failure to do so may result in injury, death, and/or harm to property. No written or verbal statement, report, data or recommendation by 3M related to automotive use of the product shall have any force or effect unless in an agreement signed by the Technical Director of 3M's Automotive Division. Customer assumes all responsibility and risk if customer chooses to use this product in an automotive electric powertrain battery or high voltage application, and 3M will not be liable for any loss or damage arising from or related to the 3M product or customer's use of the product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity or recall costs), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability. In no event shall 3M be liable for any damages in excess of the purchase price paid for the product.

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Bottom Matter

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Trademarks

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Handling/Application Information

Directions for Use

For short term storage (30 days), keep adhesive in a cool, dry place 60 to 80°F (16-27°C). For long term storage, refrigeration (40°F [4°C] or below) is suggested. Keep containers tightly covered and free of moisture. Polymerization is accelerated by sunlight, so avoid direct exposure to sun. One Ounce Bottles: At end of day, clear tip of dispensing nozzle by inserting a needle to prevent clogging. Wipe outside of nozzle to remove excess adhesive with a folded non-cotton cloth or tissue. Replace cap. One Pound Bottles: At end of day, remove cap-stem assembly and place overnight in nitromethane or methyl ethyl ketone.* Seal bottle with shipping cap.

*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer's precautions and directions for use.

Surface Preparation

For optimum strength structural bonds, paint, oxide films, oils, dust, mold release agents and all other surface contaminants must be completely removed. However, the amount of surface preparation depends on the required bond strength and the environmental aging resistance desired by the user.

Metals (Steel and Aluminum):

1. Wipe free of dust with oil-free solvent such as acetone or isopropyl alcohol.*
2. Sandblast or abrade using clean fine grit abrasives.
3. Wipe again with solvent to remove loose particles.

Aluminum Etching:

1. Alkaline Degrease: Oakite 164 solution (9-11 oz./gallon water) at 190°F ± 10°F (88°C ± 5°C) for 10-20 minutes. Rinse immediately in large quantities of cold running water.
2. Acid Etch: Place panels in the following solution for 10 minutes at 150°F ± 5°F (66°C ± 2°C).

Sodium Dichromate 4.1 - 4.9 oz./gallon

Sulfuric Acid, 66°Be 38.5 - 41.5 oz./gallon 2024-T3 aluminum (dissolved) 0.2 oz./gallon minimum Tap water as needed to balance

3. Rinse: Rinse panels in clear running tap water.

4. Dry: Air dry 15 minutes; force dry 10 minutes at 150°F ± 10°F (66°C ± 5°C).

5. If primer is to be used, it should be applied within 4 hours after surface preparation.

Plastics/Rubber:

1. Wipe with Isopropyl Alcohol.*

2. Abrade using clean fine grit abrasives.

3. Wipe with Isopropyl Alcohol.*

*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer's precautions and directions for use.

References

Property Values

3m.com Product Page

https://www.3m.com/3M/en_US/p/d/b40066942/

Safety Data Sheet SDS

https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=CA4

Family Group

Link Tags:

[CA4](#) [CA5](#) [CA8](#) [CA40](#) [CA40H](#) [CA50 Gel](#) [CA100](#)

Products	Time to Handling Strength	Minimum Long Term Temperature Resistance	Long Term Temp F
CA8	5 to 40 s	-54 °C	180 °F
CA4	5 to 40 s	N/A	180 °F
CA40	N/A	N/A	180 °F
CA100	20 to 70 s	-54 °C	212 °F
CA40H	N/A	N/A	212 °F
CA50 Gel	N/A	N/A	212 °F
CA5	12 to 60 s	-54 °C	180 °F

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.

Information

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