



Technical Data Sheet

3M™ Scotch-Weld™ Instant Adhesive CA40

Product Description

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

3M™ Scotch-Weld™ Instant Adhesive CA40 is a high-strength, very fast-setting cyanoacrylate adhesive that cures at room temperature with very low bonding pressures. It has particularly good adhesion to many difficult to bond substrates such as EPDM rubber, aluminum and flexible vinyl.

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

Notes: Colors may vary from nearly white to yellow/amber. Adhesive performance is not affected by color variation.

Viscosity	20 cP	
Base	Ethyl	
Net Weight	8.7 lb/gal	

Typical Mixed Physical Properties

Property	Values	Additional Information
Time to Handling Strength	3 to 20 s	

Typical Performance Characteristics

Property	Values	Additional Information
Long Term Temperature Resistance	-82 °C	
Minimum Long Term Temperature Resistance	-54 °C	
Long Term Temperature Resistance	180 °F	
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.

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/b40066943/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=CA40

Family Group

Link Tags:



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

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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