

## 3M™ Scotch-Weld™ Instant Adhesive CA40, 1 oz bottle, 12 per case



A high-strength, very fast-setting cyanoacrylate adhesive that cures at room temperature with very low bonding pressures.

[Full Description](#) »

It has particularly good adhesion to many difficult to bond substrates such as EPDM rubber, aluminum and flexible vinyl.

### Products

| Product / 3M Id / UPC   | Chemical Base | Product Form | Size         | Time to Handling Strength | Trademark Name 2 | Units per Case | Viscosity at 75 Degrees F (24 DegreesC) |
|---|---------------|--------------|--------------|---------------------------|------------------|----------------|---|
| 3M™ Scotch-Weld™ Instant Adhesive CA40, 1 oz bottle, 12 per case<br><br>3M Id : 62-3803-0330-5<br>GTIN(UPC/EAN) :<br>0 00 21200 74290 3 | Ethyl         | Bottle       | 1 oz. Bottle | 1 to 30 Second            | Scotch-Weld      | 12             | 20 Centipoise                           |

# 3M

# Scotch-Weld™

## Instant Adhesives

### Technical Data

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|                            |  |
|----------------------------|--|
| <b>Product Description</b> | 3M™ Scotch-Weld™ Instant Adhesives are single component, high strength cyanoacrylate adhesives.  |
| <b>Features</b>            | <ul style="list-style-type: none"><li>• One component, high strength adhesives that cure at room temperature.</li><li>• Products provide varying cure times, bond strengths, and viscosities.</li><li>• Can be used to bond a variety of substrates including many rubbers, plastics, and metals.</li><li>• Economical to use as it requires only drops of adhesive to provide strong bonds to many metals, plastics, and rubbers.</li></ul>   |
| <b>Description</b>         | <p><b>3M™ Scotch-Weld™ Instant Adhesive CA4</b> 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.</p> <p><b>3M™ Scotch-Weld™ Instant Adhesive CA5</b> is a high-strength, slow setting cyanoacrylate adhesive that cures at room temperature. Its relatively high viscosity is especially useful where some gap filling is desired for bonding rough or uneven surfaces. The longer set rate allows more time for proper alignment of parts to be bonded. Meets CID A-A-3097, Type II, Class 3.</p> <p><b>3M™ Scotch-Weld™ Instant Adhesive CA7</b> is a high-strength, extremely fast setting cyanoacrylate adhesive that cures quickly at room temperature. It has excellent adhesion to many metals, plastics and rubbers, and produces bonds with more shock and impact resistance than many typical cyanoacrylate adhesives.</p> <p><b>3M™ Scotch-Weld™ Instant Adhesive CA8</b> is a high-strength, rapid-setting cyanoacrylate adhesive that cures at room temperature. It has excellent adhesion to many metals, plastics and rubbers, and produces bonds with more shock resistance than many typical cyanoacrylate adhesives. Meets CID A-A-3097, Type II, Class 2.</p> |

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# Scotch-Weld™

## Instant Adhesives

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### Description (continued)

**3M™ Scotch-Weld™ Instant Adhesive CA9** is a high-strength cyanoacrylate adhesive that cures slower than many cyanoacrylates at room temperature. The longer set rate allows more time for proper alignment of parts before bonding takes place. It has excellent adhesion to many metals, plastics and rubbers, and produces bonds with more shock and impact resistance than many typical cyanoacrylate adhesives. Meets CID A-A-3097, Type II, Class 3.

**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.

**3M™ Scotch-Weld™ Instant Adhesive CA40H** is a high-strength cyanoacrylate adhesive. It is a higher viscosity, slightly slower setting version of Scotch-Weld CA40. It has particularly good adhesion to many difficult to bond substrates, such as aluminum, EPDM rubber, and flexible vinyl. Scotch-Weld CA40H exhibits good resistance to soap solutions and isopropyl alcohol. Its high viscosity helps prevent run off during application, and its slower set time allows additional time for proper alignment of parts.

**3M™ Scotch-Weld™ Instant Adhesive Gel CA50** is a high-strength, surface insensitive, gel cyanoacrylate adhesive. Its gel consistency allows it to be used in many non-sag vertical applications, and to fill gaps up to .020 inches. The very slow cure rate allows plenty of time to reposition parts.

**3M™ Scotch-Weld™ Instant Adhesive CA100** is a high-strength cyanoacrylate adhesive. Its relatively high viscosity (approximately 3000 cps) allows gap-filling capability up to .020 inches. It has high T-Peel strength, thermal shock resistance, impact resistance, and excellent metal bonding capabilities.

# Scotch-Weld™ Instant Adhesives

## Typical Physical Properties (uncured)

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

| Product              | 3M™ Scotch-Weld™ Instant Adhesive |       |        |        |           |        |         |               |           |
|----------------------|-----------------------------------|-------|--------|--------|-----------|--------|---------|---------------|-----------|
|                      | CA4                               | CA5   | CA7    | CA8    | CA9       | CA40   | CA40H   | Gel CA50      | CA100     |
| Color                | Clear                             | Clear | Clear  | Clear  | Clear     | Yellow | Clear   | Clear         | Clear     |
| Base                 | Ethyl                             | Ethyl | Methyl | Ethyl  | Ethyl     | Ethyl  | Ethyl   | Ethyl         | Ethyl     |
| Viscosity (cps)      | 150                               | 2000  | 15-40  | 70-130 | 1000-1700 | 20     | 400-600 | 45,000-85,000 | 2500-4500 |
| Specific Gravity     | 1.05                              | 1.05  | 1.05   | 1.05   | 1.05      | 1.05   | 1.05    | 1.07          | 1.05      |
| Net Weight (lbs/gal) | 8.7                               | 8.7   | 8.7    | 8.7    | 8.7       | 8.7    | 8.7     | 8.9           | 8.7       |

## Typical Physical Properties (cured)

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

| Product                             | Scotch-Weld |       |      |      |       |      |       |          |       |
|-------------------------------------|-------------|-------|------|------|-------|------|-------|----------|-------|
|                                     | CA4         | CA5   | CA7  | CA8  | CA9   | CA40 | CA40H | Gel CA50 | CA100 |
| Time to Handling Strength (seconds) | 5-40        | 12-60 | 1-30 | 5-40 | 20-70 | 3-20 | 5-40  | 60-120   | 20-70 |

## Overlap Shear Strength Tested at 75°F [23°C] (psi)

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

| Product           | Scotch-Weld |      |       |       |       |      |       |          |       |
|-------------------|-------------|------|-------|-------|-------|------|-------|----------|-------|
|                   | CA4         | CA5  | CA7   | CA8   | CA9   | CA40 | CA40H | Gel CA50 | CA100 |
| Steel             | 2300        | 2500 | 2500  | 2000  | 2000  | 1700 | 1500  | 2000     | 2000  |
| Aluminum - etched | 2800        | 600  | 2400  | 2100  | 2400  | 2600 | 1500  | 900      | 2900  |
| ABS               | 800*        | 800* | 900*  | 900*  | 900*  | 800* | 900*  | 800*     | 600*  |
| PVC               | 800*        | 800* | 1000* | 1000* | 1000* | 800* | 1000* | 600*     | 700*  |

### Overlap Shear Metal to Metal Bond Strength tested @ 75°F (23°C) (psi)

Tensile Shear Strength (as defined in ASTM-D-1002) - cured 48 hours at 68°F (20°C) - 60% Relative Humidity - abraded and acetone wiped - test specimen is 1/2 sq. in. bond tested @ .1 in./minute loading rate.

\*Substrate Failure

# Scotch-Weld™

## Instant Adhesives

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|                |   |
|----------------|---|
| <b>Storage</b> | Store in original containers at or below 80°F (27°C). |
|----------------|---|

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|                   |   |
|-------------------|---|
| <b>Shelf Life</b> | These products can be expected to have at least nine months shelf life. 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. |
|-------------------|---|

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|                                  |   |
|----------------------------------|---|
| <b>Precautionary Information</b> | 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. |
|----------------------------------|---|

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|                    |   |
|--------------------|---|
| <b>Product Use</b> | All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application. |
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|------------------------------------|--|
| <b>Warranty and Limited Remedy</b> | Unless stated otherwise in 3M's product literature, packaging inserts or product packaging for individual products, 3M warrants that each 3M product meets the applicable specifications at the time 3M ships the product. Individual products may have additional or different warranties as stated on product literature, package inserts or product packages. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's application. If the 3M product is defective within the warranty period, your exclusive remedy and 3M's and seller's sole obligation will be, at 3M's option, to replace the product or refund the purchase price. |
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|                                |   |
|--------------------------------|---|
| <b>Limitation of Liability</b> | Except where prohibited by law, 3M and seller will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability. |
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**3M**

Industrial Business  
Industrial Adhesives and Tapes Division



Recycled Paper  
40% pre-consumer  
10% post-consumer



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M(TM) Scotch-Weld(TM) Instant Adhesive CA-40

**MANUFACTURER:** 3M

**DIVISION:** Industrial Adhesives and Tapes Division

**ADDRESS:** 3M Center  
St. Paul, MN 55144-1000

**Issue Date:** 11/20/2006

**Supersedes Date:** 11/20/2006

**Document Group:** 19-1137-9

#### Product Use:

Intended Use: Structural Strength Instant Adhesive.  
Specific Use: Cyanoacrylate Adhesive

Formerly known as 3M(TM) Pronto(TM) Instant Adhesive CA-40.

### SECTION 2: INGREDIENTS

| <u>Ingredient</u>         | <u>C.A.S. No.</u> | <u>% by Wt</u> |
|---------------------------|-------------------|----------------|
| ETHYL CYANOACRYLATE       | 7085-85-0         | 60 - 100       |
| POLY(METHYL METHACRYLATE) | 9011-14-7         | 1 - 5          |
| HYDROQUINONE              | 123-31-9          | < 0.5          |

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Thin Liquid

**Odor, Color, Grade:** clear, colorless, sharp irritating odor

**General Physical Form:** Liquid

**Immediate health, physical, and environmental hazards:** Combustible liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Hazardous polymerization may occur. May cause severe eye irritation. May cause allergic skin reaction. May bond tissue rapidly.

## 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

### 8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields, Indirect Vented Goggles.

### 8.2.2 Skin Protection

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Butyl Rubber, Polyvinyl Alcohol (PVA), Polyethylene/Ethylene Vinyl Alcohol. The following protective clothing material(s) are recommended: Apron - Polyethylene ethylene vinyl alcohol. DO NOT wear cotton gloves.

### 8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece air-purifying respirator with organic vapor cartridges and N95 particulate prefilters. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

### 8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

## 8.3 EXPOSURE GUIDELINES

| <u>Ingredient</u>   | <u>Authority</u> | <u>Type</u> | <u>Limit</u>        | <u>Additional Information</u> |
|---------------------|------------------|-------------|---------------------|-------------------------------|
| ETHYL CYANOACRYLATE | ACGIH            | TWA         | 0.2 ppm             |                               |
| HYDROQUINONE        | ACGIH            | TWA         | 2 mg/m <sup>3</sup> | Table A3                      |
| HYDROQUINONE        | CMRG             | STEL        | 4 mg/m <sup>3</sup> |                               |
| HYDROQUINONE        | OSHA             | TWA         | 2 mg/m <sup>3</sup> | Table Z-1                     |

### SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

|                                 |  |
|---------------------------------|--|
| <b>Specific Physical Form:</b>  | Thin Liquid                              |
| <b>Odor, Color, Grade:</b>      | clear, colorless, sharp irritating odor  |
| <b>General Physical Form:</b>   | Liquid                                   |
| <b>Autoignition temperature</b> | <i>No Data Available</i>                 |
| <b>Flash Point</b>              | 175 °F [ <i>Test Method:</i> Closed Cup] |
| <b>Flammable Limits - LEL</b>   | <i>No Data Available</i>                 |
| <b>Flammable Limits - UEL</b>   | <i>No Data Available</i>                 |
| <b>Boiling point</b>            | 131 °F [ <i>Details:</i> @ 2mm Hg]       |
| <b>Density</b>                  | 1.05 g/ml                                |
| <b>Vapor Density</b>            | 4.5 [ <i>Ref Std:</i> AIR=1]             |
| <b>Vapor Pressure</b>           | <=1 Pa                                   |

|   |                                   |
|---|-----------------------------------|
| Specific Gravity                            | 1.050 [ <i>Ref Std: WATER=1</i> ] |
| pH  | <i>Not Applicable</i>             |
| Solubility in Water                         | Nil                               |
| Evaporation rate                            | Negligible                        |
| Hazardous Air Pollutants                    | 0.017 lb HAPS/gal                 |
| Volatile Organic Compounds                  | 0 % weight                        |
| Kow - Oct/Water partition coef              | <i>No Data Available</i>          |
| Percent volatile                            | 0.00 % weight                     |
| VOC Less H <sub>2</sub> O & Exempt Solvents | 0 g/l                             |
| Viscosity                                   | 10 - 30 centipoise                |

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:** Strong bases; Amines

**Hazardous Polymerization:** Hazardous polymerization may occur. Additional Information: May occur in large quantities only.

### Hazardous Decomposition or By-Products

| <u>Substance</u>   | <u>Condition</u>  |
|--------------------|-------------------|
| Carbon monoxide    | During Combustion |
| Carbon dioxide     | During Combustion |
| Oxides of Nitrogen | During Combustion |

## SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

## SECTION 12: ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

Not determined.

### CHEMICAL FATE INFORMATION

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Reclaim if feasible. Dispose of completely cured (or polymerized) wastes in a sanitary landfill.