



# Scotch-Weld™ Liquid Adhesive 847

## Product Data Sheet

Date: September 2022  
Supersedes: June 2014

### Product Description

Scotch-Weld™ Liquid Adhesive 847 adhesive is a high strength, fast setting nitrile based adhesive.

### Key Features

- Used in the electronic, radio and TV industries.
- Provides strong flexible bonds
- Bonds leather, nitrile rubber, most plastics & gasketing materials to a variety of substrates
- Very good resistance to many fuels and oils.
- May be heat cured to obtain improved physical properties.

### Typical Physical Properties

<b>Viscosity</b> (Brookfield RVF (#3 spindle @ 20 rpm) (ISO 2555)	2275 mPAs
<b>Solids Content</b> (EN ISO 827)	36 %
<b>Base</b>	Nitrile Rubber
<b>Colour (wet &amp; dry)</b>	Dark Brown
<b>Specific Gravity</b> (EN ISO 2811.1)	0.88 g/cm
<b>Solvent</b>	Acetone

### Typical Performance Characteristics

<b>180 Peel Strength Canvas / Aluminium</b> ISO 8510-2 (Speed of pulling: 50 mm/min)		
<b>Time @ 23 °C</b>	<b>Test Temp</b>	<b>Value (daN/cm)</b>
<b>1 hour</b>	<b>23 °C ± 2 °C</b>	<b>3.4</b>
<b>96 hours</b>	<b>23 °C ± 2 °C</b>	<b>11.2</b>

  

<b>Oil Resistance</b> (ISO 8510-2) Canvas/ aluminium peel samples cured for 72 hours at 23 °C, 24 h in oil at 70 °C		
<b>Time @ 70 °C</b>	<b>Test Temp</b>	<b>Value (daN/cm)</b>
<b>24 hours in oil</b>	<b>70 °C</b>	<b>4.0</b>

**Typical Performance Characteristics**

**Heat Resistance**

(ISO 8510-2)

(Canvas/aluminium peel samples cured for 18 hours at 23 °C and 24 h at 70 °C, a weight of 1 kg is applied on the canvas so as the angle between canvas and aluminium if of 90 °C, assembly is heated to 70 °C for 24 h, after this time, the distance of failure is measured)

Time @ 70°C	Test Temp	Value (daN/cm)
24 hours	70°C	5.0

**Handling/Application Information**

**Directions for Use:**

**1. Surface Preparation:** Remove all dust, dirt, oil, grease, wax, loose paint, etc.

Wiping with a solvent such as methyl ethyl ketone (MEK)\* or 3M™ Citrus Base Cleaner will aid in preparing the surface for bonding

**2. Application Temperature:** For best results the temperature of the adhesive and surfaces to be bonded should be at least 18 °C

**3. Application:** Stir well before using

**Porous Surface(s):** Brush, flow or spray a thin, even coat of adhesive to one or both surfaces. Coating both surfaces is preferred since it gives greater strength and permits longer open time before bonding. Very absorbent materials may require more than one coat. Bond while adhesive is still wet or aggressively tacky. Join surfaces with firm pressure.

**Non-Porous Surfaces:** Brush, flow or spray a thin, even coat of adhesive to both surfaces. Allow adhesive to dry until tacky. Join surfaces with firm pressure.

**4. Drying Time:** Drying time depends on temperature, humidity, air movement, and porosity of the materials bonded. Greater immediate strength may be obtained by heat or solvent reactivation. See Reactivation below.

**5. Reactivation:** To solvent reactivate, coat both surfaces with adhesive. Allow to dry tack-free. Lightly wipe one surface with a solvent such as methyl ethyl ketone (MEK)\* Complete bond within 30 s.

To heat activate, coat both surfaces with adhesive. Allow adhesive to dry completely. Reactivate by heating one or both surfaces to a minimum of 82 °C. Assemble immediately (while hot), using firm pressure to ensure contact.

**6. Curing:** 3M™ Scotch-Weld™ Liquid Adhesive 847 may be heat cured to obtain improved physical properties. Cure assembled parts at time and temperature listed pressure on the bond line.

**7. Clean-up:** Excess adhesive may be removed with a solvent such as methyl ethyl ketone (MEK) or acetone, preferably while adhesive is still wet\*

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

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**Storage & Shelf Life**

Store at 16 °C - 25 °C and 40 - 65 % relative humidity in its original box.  
Higher temperatures reduce normal storage life. Lower temperatures cause increased viscosity of a temporary nature.  
Rotate stock on a "first in-first out" basis.

The product can be stored up to 43 months after production.

**Note:** The shelf life may be shortened if the original packaging is not properly sealed or stored in an environment with high temperatures or humidity.

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**Precautionary Information**

Refer to product label and Material Safety Data Sheet for health and safety information before using the product.  
For information please contact your local 3M Office.  
[www.3M.com](http://www.3M.com)

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**For Additional Information**

To request additional product information or to arrange for sales assistance, go to [www.3M.be/bonding](http://www.3M.be/bonding) or [www.3M.nl/bonding](http://www.3M.nl/bonding)

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**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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