

April, 2016

3M™ Scotch-Weld™ Metal Instant Adhesive MC100

Product Description

3M™ Scotch-Weld™ Metal Instant Adhesives are designed to give optimum performance and high strength bonds on metals, including galvanized or anodized surfaces.

Product Features

- 3M™ Scotch-Weld™ Metal Instant Adhesive MC100 is a low viscosity cyanoacrylate designed for metals bonding but which can also bond plastics, rubbers and other common substrates.



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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	Notes
Color	Clear	Colors may vary from nearly white to yellow/amber. Adhesive performance is not affected by color variation.
Viscosity	70 to 110 cP	Cone-Plate viscosity, CP75 at 3000/s shear rate
Base	Ethyl	

Typical Mixed Physical Properties

Property	Values	Substrate	Notes	Test Condition
Time to Handling Strength	<30 s	EPDM Rubber	Time to handling is substrate dependent.	
Time to Full Cure	24 h			Room Temperature
Gap Fill	0.006 in			

Percent of Initial Strength	Test Condition
100 %	Room Temperature
84 %	@ 167°F
69 %	@ 212°F
22 %	@ 257°F

Property: Percent of Initial Strength

Typical Performance Characteristics

Temperature Use Range: -60 to 180 °F

Typical Physical Properties

Property	Values
Specific Gravity	1.06 g/mL
Appearance	Liquid

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Handling/Application Information

Directions for Use

1. Ensure that parts are clean, dry, and free from oil and grease.
2. An instant adhesive activator may be required if there are bonding gaps or porous substrate surfaces, if substrates are low surface energy plastics (e.g., polyethylene, polypropylene) or if substrates have acidic surfaces (e.g., paper, leather).
3. Bond speed is typically very fast so ensure that parts are properly aligned before dispensing.
4. Product is normally hand applied from the bottle. Apply sparingly to one surface and press parts firmly together until handling strength is achieved. As a general rule, as little cyanoacrylate as possible should be used. Over application will result in slower cure speed and lower bond strength.

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. Typical quick surface preparation would include wiping with a clean solvent (such as isopropyl alcohol*), abrading the surface with a clean fine abrasive, and then wiping again with a clean solvent to remove loose particles.

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

Cured Bond Characteristics

1. Full bond strength will typically be achieved within a 24 hour cure time.
2. Low humidity or low temperature conditions will slow down the cure rate.
3. After curing, 3M™ Scotch-Weld™ Metal Instant Adhesive bonds are suitable for use up to about 180°F (82°C).
4. Cyanoacrylate bond resistance to most oils and solvents is excellent. Long term humidity, moisture, or water immersion may affect the strength of a cured cyanoacrylate bond depending on the substrates and the bond gap. Testing is recommended to evaluate the effect.

Storage and Shelf Life

For short term storage (<30 days), keep adhesive in a cool (60°F to 80°F [16°C to 27°C]), dry place out of direct sunlight. Keep containers tightly covered and free of moisture. Refrigeration (40°F [4°C]) gives optimum long term storage stability.

3M™ Scotch-Weld™ Metal Instant Adhesives can be expected to have a shelf life of 15 months from date of manufacture when stored under refrigerated conditions.

Trademarks

3M and Scotch-Weld are trademarks of 3M Company.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Scotch-Weld-Metal-Instant-Adhesive-MC100?N=5002385+3293241411&rt=rud
Safety Data Sheet (SDS)	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=MC100

ISO Statement

This product was manufactured under a quality system registered to ISO 9001 standards.

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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