



Technical Data Sheet

3M™ Scotch-Weld™ Super Fast Instant Adhesive SF20



[Product Details](#)



[Regulatory Info/SDS](#)

Product Description

3M™ Scotch-Weld™ Super Fast Instant Adhesives rely less on surface moisture for cure speed than standard cyanoacrylates. They are designed to join together difficult-to-bond plastics and rubbers, acidic and/or contaminated surfaces such as woods, leathers, cardboard, and oily surfaces. These cyanoacrylates can be used for a super fast cure in high speed production applications.

Product Features

3M™ Scotch-Weld™ Super Fast Instant Adhesive SF20 is a wicking grade instant adhesive that is generally recommended for use on close-fitting parts and fairly smooth, even surfaces.

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

| Attribute Name | Value |
|----------------|--------------------------|
| Color | Clear ¹ |
| Viscosity | 10 to 25 cP ² |
| Base | Ethyl |

¹ Colors may vary from nearly white to yellow/amber. Adhesive performance is not affected by color variation.

² Cone-Plate viscosity, CP75 at 3000/s shear rate

Typical Mixed Physical Properties

| Attribute Name | Temperature | Value |
|-----------------------------|-----------------|------------------|
| Time to Full Cure | 22 °C (72 °F) | 24 h |
| Time to Handling Strength | | 5 s ¹ |
| Gap Fill | | 0.004 in |
| Percent of Initial Strength | 22 °C (72 °F) | 100 % |
| Percent of Initial Strength | 75 °C (167 °F) | 92 % |
| Percent of Initial Strength | 100 °C (212 °F) | 72 % |
| Percent of Initial Strength | 125 °C (257 °F) | 22 % |

¹ Min time between bond creation and ability to support a 5 psi tensile load. Open and set times determined by RT environment. Higher temps will lengthen open and set times, while lower temperatures will shorten open time and set time.

Typical Physical Properties

| Attribute Name | Value |
|------------------|-----------|
| Appearance | Liquid |
| Specific Gravity | 1.06 g/mL |

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™ Super Fast 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™ Super Fast Instant Adhesives can be expected to have a shelf life of 15 months from the date of manufacture when stored under refrigerated conditions.

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.

Automotive Disclaimer

Select Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

Information

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ISO Statement

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

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