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Technical Data Sheet

3M™ Scotch-Weld™ Plastic and Rubber Instant Adhesive PR Gel

English-US
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Product Details

Regulatory Info/SDS

Product Description

3M™ Scotch-Weld™ Plastic and Rubber Instant Adhesives are designed to give exceptional performance on difficult-to-bond plastic and rubber substrates. These adhesives may be bonded to like substrates or in combination with metal or composite substrates. Superior performance is achieved on materials such as heavily plasticized PVC, EPDM, ABS, Nylon, Santoprene®, and Viton®.

Product Features

• 3M™ Scotch-Weld™ Plastic and Rubber Instant Adhesive PR Gel is a fast curing, very high viscosity, gap-filling cyanoacrylate. Its gel formulation is suitable for bonding poorly mating components and for porous substrates and can be used on vertical surfaces as it will not drip or slump.

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	100,000-150,000 cP [2]
Base	Ethyl Hybrid

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

[2] Brookfield viscosity, Spindle TC @ 2.5 rpm

Typical Mixed Physical Properties

Attribute Name	Temperature	Value
Time to Full Cure	22 °C (72 °F)	24 h [1]
Time to Handling Strength		25 s [2]
Gap Fill		0.02 in
Percent of Initial Strength	22 °C (72 °F)	100 %
Percent of Initial Strength	75 °C (167 °F)	84 %
Percent of Initial Strength	100 °C (212 °F)	41 %
Percent of Initial Strength	125 °C (257 °F)	13 %

[1] The cure time is defined as that time required for the adhesive to achieve a minimum of 80% of the ultimate strength as measured by aluminum-aluminum OLS.

[2] 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	1.1 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™ Plastic and Rubber 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), store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original packaging, out of direct sunlight. Keep containers tightly covered and free of moisture. Refrigeration at 4°C (40°F) gives optimum long term storage stability. When stored under refrigerated conditions, use this product within 15 months from date of manufacture.

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

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.

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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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