SMC/Fiberglass Repair Adhesive - 3
08271

Technical Data Sheet **June, 2014**

3M Part No.(s)	3M Part Descriptor(s)
08271	3M™ SMC/Fiberglass Repair Adhesive - 3

Product Description

3M™ SMC/Fiberglass Repair Adhesive - 3 is a two-part urethane used to bond rigid plastics, such as Sheet Molded Compound (SMC), Fiber Reinforced Polyester (FRP) i.e. Fiberglass, Metton®, and primed metal.

Features

- Meets OEM strengths specifications
  - Freightliner; Standard No. 49-00093 Revision C
  - PACCAR; Specification No. CMT0038
- Excellent absorption into fiberglass mat or cloth
- Low viscosity
- Metered static mixing

Typical Physical Properties

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

	Part A	Part B
Container	400 ml Dual Cartridge	
Base	Urethane	Curative
Density lbs/Gallon (Appx.)	11	11
Color	Green	White
Viscosity (CPS) Brookfield Viscometer	15,000	15,000 - 27,000
Solids Content (Appx.)	100%	100%
Consistency	Viscous Liquid	Viscous Liquid
Service Temperature - °F	-40 to 180°F	-40 to 180°F

Product Uses

3M™ SMC/Fiberglass Repair Adhesive - 3 is used to bond backup strips and patches to rigid plastics, such as Sheet Molded Compound (SMC), Fiber Reinforced Polyester (FRP) i.e. Fiberglass, and Metton®. This adhesive is ideal for small repair areas such as grilles, bonding strips and gouges.

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Other Applications

- Bonding flexible plastics if used in combination with 3M™ Polyolefin Adhesion Promoter, PN 05907.
- Bonding rigid plastics such as SMC, FRP, and Metton® to primed metal.
- May be used as a cosmetic filler if desired. **Note:** DO NOT apply a two part polyester filler or putty over PN 08271. For easier finishing, 3M recommends using 3M™ Rigid Parts Repair, PN 08275, as a cosmetic filler.
- Bonding small parts of SMC or FRP, such as head light buckets.
- Bonding industrial and marine composites.

Use with the following applicators; PN 08280 or PN 08284.
Use with the following 3M™ Mixing Nozzles; PN 08193 or PN 08194.

Typical Performance Properties

The following times have been determined with ambient air temperature and substrate temperature @ 73°F (23°C) and are considered typical values.

MIX NOZZLE DWELL TIME:
2.5 minutes

WORK TIME:
3 minutes

CLAMP TIME:
10 minutes

SAND TIME:
30 minutes

CURE TIME:
30 minutes

PAINT TIME:
N/A

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

Overlap Shear Strength, tested @ 73°F (23°C)
1" x 4" coupon, with 1" overlap. 30 mil bond thickness.

Lap Shear, SMC	1,344 PSI	ASTM D3163
Lap Shear, Metton®	1,549 PSI	ASTM D3163
Tensile Strength	3,630 PSI	ASTM D638-10
Elongation	75%	ASTM D638-10
Tensile Modulus (1 Day Cure)	140,000 PSI	ASTM D638-10
Stress @ 5% Strain		
(1 Day Cure)	2,800 PSI	ASTM D790-07
(7 Day Cure)	4,100 PSI	ASTM D790-07

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Directions for Use

SURFACE PREPARATION

1. Wash the surface with soap and water to remove water soluble contaminants. Clean with an appropriate 3M VOC compliant product to remove remaining surface contaminants. Reference the 3M Automotive Aftermarket catalog for a suitable VOC compliant product.
2. Sand the bonding surfaces with a P80 grit 3M abrasive.
3. Remove dust from surface using clean, dry compressed air and a clean rag.
4. SMC and fiberglass DO NOT require an adhesion promoter. If repairing Metton®, apply a light, consistent coat of 3M™ Polyolefin Adhesion Promoter, PN 05907, to the repair area. Allow promoter to dry for 5 minutes before applying adhesive.

PRODUCT PREPARATION

1. Insert the cartridge into the applicator gun.
2. Remove the retaining collar and plug from the end of the cartridge. Discard the plug. Save the retaining collar.
3. Equalize the cartridge by extruding a small amount of product until both parts A and B dispense equally.
4. Attach the 3M™ Mixing Nozzle, PN 08193 or 08194 to the cartridge and lock it in place with the retaining collar.
5. Dispense a small amount of material out of the nozzle and discard.

GENERAL REPAIR PROCESS

1. Dry fit parts to ensure a good fit.
2. Apply a continuous bead of adhesive to one part.
3. Mate the parts and clamp the parts in place for 10 minutes (at 73ºF).

APPLICATION WARNINGS

1. DO NOT over clamp.
2. DO NOT use a two part polyester body filler or putty over PN 08271. Bubbling may result.
3. For bonding flexible plastics and/or Metton®, apply a light, consistent coat of the 3M™ Polyolefin Adhesion Promoter, PN 05907, to the bonding surface as the last surface preparation step. Allow the promoter to dry for 5 minutes before applying the adhesive.
4. If bonding metal, first apply a two part epoxy or urethane primer to the metal surface. Once the primer has cured, scuff the bonding surface with a 3M™ Scotch-Brite™ General Purpose Pad-Maroon (PN 07447).

CLEAN-UP

1. Remove excess PN08271 prior to complete cure by using an appropriate VOC compliant adhesive remover suitable for most surfaces, such as 3M™ Specialty Adhesive Remover (PN38984 / PN38987). Reference the 3M Automotive Aftermarket Catalog for the full line of suitable VOC compliant products.

Applications

See “Product Uses on page 1”.

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Storage and Handling

When stored at the recommended conditions in original, unopened containers, this product has a shelf life of at least 12 months from the date of manufacture. Store at room temperature. Rotate stock on a “first-in-first-out” basis. After use, leave the mix nozzle in place to seal the cartridge.

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for Health and Safety Information before using this product. MSDS Doc# 09-5274-7, 09-5277-0.

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Many factors beyond 3M’s control and uniquely within user’s knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user’s method of application.

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For Additional Health and Safety Information

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