

# Semi-Rigid Parts Repair - 1

08235

Technical Data Sheet	<b>July 2017</b>
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3M Part No.(s)	3M Part Descriptor(s)
08235	3M™ Semi-Rigid Parts Repair - 1

#### **Product Description**

3M<sup>TM</sup> Semi-Rigid Parts Repair - 1 is a two-part urethane used to repair semi-rigid and flexible plastics such as Xenoy, RRIM, GTX, PPO, ABS, as well as a variety of other plastics. It is an excellent choice for small repairs and reinforcement of two-sided damage, because of its extremely fast work time and bond strength.

#### **Features**

- Fast curing urethane chemistry
- 200 ml dual-syringe cartridge system
- Bonds multiple plastic materials

## 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.

Container	200 ml dual-syringe cartridge	
Base	Urethane	
Density lbs/Gallon (Appx.)	10.7 / 10.2	
Color	White / Black	
Flash Point - °F	>200°F	
Viscosity (CPS) Brookfield Viscometer	12,000 - 20,000	
Solids Content (Appx.)	100%	
Consistency	Paste	
Service Temperature - °F	-20°F to 180°F	

#### **Product Uses**

Two-part urethane used to repair semi-rigid and flexible plastics such as Xenoy, RRIM, GTX, PPO, ABS, as well as a variety of other types. Excellent choice for quick repairs because of its extremely fast work time. For best results use in conjunction with **3M**<sup>TM</sup> **Polyolefin Adhesion Promoter (PN 05907) when repairing Polyolefin type plastics.** 

Use with the following applicators: PN 08117 (manual), PN 08571(manual), and PN 09930 (pneumatic).

3M<sup>TM</sup> Mix Nozzle PN 08193 (6/bag), PN 8194 (50/box).

Note: Do not apply polyester body filler directly to this product.

Note: Use with 3M<sup>™</sup> Reinforcement Tape PN 04904 when reinforcing repairs.

For professional use only. Not intended for retail sale.

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#### Typical Performance Properties

The following times have been determined with ambient air temperature and substrate temperature @ 70°F and are considered typical values.

#### **WORK TIME:**

50 seconds

#### MIX NOZZLE DWELL TIME:

20 seconds

#### **SAND TIME:**

30 minutes

#### **CURE TIME:**

1 hour

#### **PAINT TIME:**

30 minutes

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

Lap Shear, SMC	1190 PSI	ASTM D1002 / 2" per minute
Lap Shear, FRP	685 PSI	ASTM D1002 / 2" per minute
Lap Shear, TPO	460 PSI	ASTM D1002 / 2" per minute
Lap Shear, PP	495 PSI	ASTM D1002 / 2" per minute
Lap Shear, TEO	320 PSI	ASTM D1002 / 2" per minute

Overlap shear test method: Overlap shear test for adhesion determined in accordance with ASTM D1002. Sample dimensions 1" x 4" x .0111" with an overlap area of 1/2" x 1". Plastics cleaned with 3M General Purpose Adhesive Cleaner PN 08984 and DA sanded with P80 abrasive. Thermopolyolefin and Polypropylene plastics coated with 3M<sup>TM</sup> Polyolefin Adhesion Promoter N05907.

#### **Directions for Use**

#### **SURFACE PREPARATION:**

- Wash surface with soap and water to remove water soluble contaminants. Follow the soap and water wash with an appropriate VOC compliant product for removal of surface contaminants.
- 2. Sand the surface with a grade P80 or P180 abrasive.
- 3. Remove dust from surface using clean, un-oiled compressed air and a clean, dry rag.
- 4. Apply 3M<sup>TM</sup> Polyolefin Adhesion Promoter (PN 05907) following label directions.

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# Directions for Use (continued)

#### PRODUCT PREPARATION:

- 1. Insert cartridge into applicator gun.
- 2. Remove retaining collar and plug from end of cartridge. Discard plug, save retaining collar.
- 3. Extrude a small amount of product until both parts A and B dispense equally.
- 4. Attach 3M<sup>™</sup> Mixing Nozzle (PN 08193) to cartridge and lock in place with retaining collar.

**CAUTION:** Before proceeding with next step have all parts accessible and ready for repair.

5. Dispense a small amount of material and discard.

#### **GENERAL REPAIR PROCESS:**

- 1. Apply adhesive to one of the parts and assemble the parts immediately.
- 2. Hold parts together for 2 to 3 minutes.

**NOTE:** Allow to cure 1 hour before putting repaired part into service.

#### **APPLICATION WARNINGS:**

Do not apply polyester fillers or putties over this product.

#### **CLEAN-UP:**

Unmixed material may be cleaned from most surfaces with an appropriate VOC compliant product.

#### **Applications**

Bonding and reinforcing of multiple types of plastic, excellent choice for medium to small sized repairs. For best results use in conjunction with **3M<sup>TM</sup> Polyolefin Adhesion Promoter (PN 05907)** when repairing polyolefin type plastics.

# Storage and Handling

#### **STORAGE**

When stored at the recommended conditions in original, unopened containers, this product has a shelf life of 12 months from the date of manufacture. Keep container in well-ventilated area. Store away from acids. Store away from heat. Store out of direct sunlight. Store away from strong bases.

#### **HANDLING**

Avoid eye contact with vapors, mists, or spray. Do not breathe vapors. Avoid skin contact. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid breathing of dust created by cutting, sanding, grinding or machining. Avoid contact with water to prevent potentially violent reaction or fire.

After use, leave mix nozzle in place to seal the cartridge.

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#### Precautionary Information

Before using this product, please reference Product Label and/or Safety Data Sheet for Health and Safety Information. Note: Laws controlling the acceptable amounts of Volatile Organic Compounds (VOC's) vary by state, and in some cases by locality. For surface preparation and clean-up activities, consult federal, state and local regulations regarding use of products containing VOCs in your area.

#### **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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