



Automotive Aftermarket Division

3M™ 08603/08615/08616 One Part Polyurethane Glass Bonding Adhesive

1) Part Numbers

3M™ 08603	:	310 ml cartridge
3M™ 08615		310 ml sachet
3M™ 08616		415 ml sachet

Dispensing system	:	3M™ 08012 air-powered gun (for cartridge) 3M™ 08006 air-powered gun (for sachet) 3M™ 08013 manual gun (for 310 ml cartridge or sachet) 3M™ 08993 universal gun (for 310 ml cartridge or sachet)
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2) Description and end uses'

3M™ 08603 is a one component, moisture curing polyurethane adhesive designed specifically for bonding windscreens and rear windows, in accordance with main car manufacturer's specifications.

3M™ 08603 is used with associated primers:

- 3M™ Glass Adhesion Promoter (3M™ 08617).
- 3M™ Glass and Paint Black Primer (3M™ 08614).



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Effective: 28/02/2020 Supersedes: 01/07/1999

3M™ 08603 is an adhesive that must be used for glass replacement or installation when a structural bond is required; this includes all the replacement for new windscreens and rear windows today bonded in O.E.M. with P.U. sealers.

3) Physical Properties

Base	One-part moisture curing polyurethane
Consistency	Thick thixotropic paste
Color	Black
Density	1.2
Solids content (typical)	95 %
Tack Free Time	30 minutes (typical at 23°C, 50% RH)
Open time	10-15 minutes (typical at 23°C, 50% RH)
Cure through rate	> 3.5 mm after 24 hours (typical at 23°C, 50% RH)
Final Hardness	50-55 Shore A (typical)
Tensile strength (DIN 53504)	6 MPa
Elongation at break (DIN 53504)	500%
Ultimate Overlap Shear Strength	4 MPa
Safe drive away time	4 hours minimum, for cars without airbag (at 23°C, 50% RH) 8 hours minimum, for cars with airbags (at 23°C, 50% RH)
Temperature resistance	-25°C to + 90°C
Temperature of application	+ 5°C to + 35°C

- Immediate installation of the glass.
- A non-sag bead of adhesive up to 15 mm thick.
- When fully cured, meets OEM strength requirements.
- Successfully passes a real crash test following US standard FMVSS 212 and a roof crushing test following US standard FMVSS 216.



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4) Directions for Use

1. Remove old windscreen, wiper arms and trim necessary to expose the entire perimeter of glass.
2. Inspect urethane remaining on pinch weld for loose or unbonded areas. If existing urethane is not securely bonded, remove. Remove any rust and prime any bare or scratched metal with 3M™ Black Primer N°2.

Note: when excessive abrasive cleaning is required, prime pinch weld metal with an OEM recommended curing automotive paint primer and allow to cure properly.

3. Dry set the replacement glass into opening and align for uniform fit.

4. Glass preparation:

- a) Clean replacement windscreen with 3M™ Glass Cleaner 3M™ 08631 taking care to carefully clean surface where the adhesive bond will be made. Wipe dry.
- b) Apply the *Glass Adhesion Promoter N°1* (3M™ 08617 or 3M™ 08632) to clean and prepare the glass ceramic edges. Wipe-off immediately. Apply a second time, wipe-off and allow it to dry and activate the glass surface for 10 minutes minimum.
- c) Apply the *Glass and Paint Black Primer N°2* (3M™ 08614 or 3M™ 08633) over the primer N°1. Let it dry 10 minutes.

Note: if temperature in shop is below 15°C, allow primer to dry longer, up to 20 minutes to get proper surface preparation.

5. Pinch weld preparation:

- a) In case of old polyurethane sealer remaining on the body frame, use a knife to reduce the remaining sealer to a thickness of 1 mm. If needed, clean its surface with 3M™ 08984 Adhesive Cleaner and let it dry 10 minutes. Then apply 3M™ 08603 / 08615 / 08616 adhesive on.
- b) On newly painted body frame (paint fully cured), apply the primer N°2. Let it dry 10 minutes. Then apply 3M™ 08603 / 08615 / 08616 adhesive on.

Note: paint surface must be dried, degreased and free from dust.

6. Extrude a bead of 3M™ 08603 / 08615 / 08616 adhesive on the glass or on the body frame (depending on manufacturer's instructions). Extrude adhesive at sufficient height to assure proper wet-out of both glass and pinch weld is achieved when windscreen is set.



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7. Set the glass, using the appropriate marks, within 15 minutes following the application of the adhesive.
8. Install trim mouldings and hardware.
9. Clean any excess using 3M™ 08984 Adhesive Cleaner.
10. Precautions to be taken after assembly: the curing time of 3M™ 08603 / 08615 / 08616 adhesive depends upon atmospheric humidity and temperature. The vehicle must remain stationary for a minimum of 4 hours (for cars without airbags) or 8 hours (for cars with airbags).

5) Storage

Storage conditions	Cool dry place. Best results are obtained when material is stored and applied at room temperature, 15 to 30°C.
Shelf life	12 months from date of manufacture under normal storage conditions. Refer to 'Best Before Date' on cartridge or sachet.

6) Safety

Please refer to the Material Safety Data Sheet or contact your local 3M™ Toxicology Department.

3M™ 08603/08615/08616 is designed FOR PROFESSIONAL INDUSTRIAL USE ONLY.



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7) Disclaimer

All statements, technical information and recommendations are based on tests we believe to be reliable but the accuracy or completeness thereof is not guaranteed. Please ensure before using our product that it is suitable for your intended use. All questions of reliability relating to this product are governed by the Terms of Sale subject, where applicable, to the prevailing law.

For Additional Health and Safety Information

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