

Overview

This installation guide provides details on the proper installation of the 3M™ Protection Wrap Film. This document includes a list of recommended products and tools as well as vehicle preparation and 3M™ Protection Wrap Film installation best practices.

Installation Tools

- WrapGlove® GHOST™ glove or similar wrap glove
- Scotch-Brite® lint-free microfiber cloths
- Cutting tools
 - A 30-degree stainless steel blade cutting knife
 - 3M™ Knifeless™ Tape Precision Line (recommended) or 3M™ Knifeless™ Tape Design Line (alternative)
- Felt squeegee
- Electric heat gun
- Isopropyl alcohol
- Deionized water
- Spray bottles
- Non-detergent soap
- 3M™ General Purpose Adhesive Cleaner or similar adhesive remover solvent
- 3M™ Foaming Glass Cleaner or similar non-ammonium foaming glass cleaner
- 3M™ Perfect-It™ Cleaner Clay or Meguiar's® Mirror Glaze® Professional Detailing Clay, Mild, CS200
- *Optional:* 3M™ Quick Wax Spray Detailer or Meguiar's® Ultimate Quick Detailer
- *Optional:* 3M™ Primer 94

Tips and Tricks

- Film is flexible and conformable without heat.
- Heat is recommended when applying the film to deep recesses.
- For best results, do NOT over stretch material when conforming around curves.
- Post-heat edges thoroughly after installation to prevent the material from lifting over time.
- 3M™ Knifeless™ Tape Precision Line can easily cut through the film.
- Pre-heating cutting blade or a heated blade can assist in cutting free floating film.

Vehicle Preparation

Vehicle Condition

All wrap films, including 3M™ Protection Wrap Film, should be applied to a “like new” vehicle finish for the best results. 3M’s warranty only applies to vehicles that have an excellent bond between the paint and the vehicle substrate. Any rust, bubbling, scratches, dents, or other damage will be visible through the film, and such imperfections may damage the film or cause the film to fail prematurely. Areas repaired with body filler must be sanded, epoxy primed, and, for best results, finished with an original equipment manufacturer paint or clear coat. Any recently applied finish must be fully cured according to the paint manufacturer’s directions before film is applied.

Any defect in the paint—including scratches, dents, bubbling, pitting, fisheyes, and orange peel—may be visible through 3M™ Protection Wrap Film, especially when using the flat, gloss colors. 3M recommends a professional paint correction be performed when heavy orange peeling is present on a vehicle prior to installing 3M™ Protection Wrap Film. Failure to do so will result in high gloss films taking on the orange peel appearance. Wrap shops should set proper expectations for their customers before installing any 3M™ Protection Wrap Film.

Installation Environment

Working with 3M™ Protection Wrap Film high gloss films requires a clean installation environment. Keep the floors clean of dust and debris to lessen the chance of contaminants getting under the film. Lint-free clothing and hair covers may also be necessary. Film should be installed immediately after the installation surface has been cleaned.

Cleaning Instructions

NOTE

See the [3M™ Vehicle Prep for Success Guide](#) for detailed cleaning guidelines. 3M strongly recommends following these detailed cleaning guides prior to installing any gloss color films.

1. Work with an authorized paint correction specialist or automotive detailer to remove any ceramic coating, if one is present on the vehicle. See the [Ceramic Coating Removal SOP](#) for details.
2. Use 3M™ General Purpose Adhesive Cleaner—or a similar product—to remove any surface residue (e.g. wax, tar, paint sealant).
3. Use 3M™ Foaming Glass Cleaner—or a similar product—to remove any excess adhesive cleaner
4. Clean the vehicle surface with non-detergent soap.
5. Use 3M™ Perfect-It™ Cleaner Clay or Meguiar's® Mirror Glaze® Professional Detailing Clay, Mild, CS200 together with water and non-detergent soap to remove surface contaminants from the painted surface.
6. Wipe down the vehicle with a clean Scotch-Brite® lint-free microfiber cloth.

NOTE

Perform a final vehicle inspection prior to film installation.

Installation Preparation

1. *Optional:* To minimize the risk of adhesive lines and wrinkles:
 - a. Apply Meguiar's® Ultimate Quick Detailer to the vehicle's high points
 - b. If desired, wipe large flat areas with Meguiar's® Ultimate Quick Detailer.

NOTE

Do NOT use a ceramic coating or ceramic boost spray for vehicle preparation.

2. *Optional:* Apply 3M™ Primer 94 to vehicle areas where the film will be stretched, particularly on vehicle panel edges, to help maximize the film's bond to the substrate.
3. Clean all edges with a microfiber cloth and a mixture of 70% isopropyl alcohol and 30% deionized water.
4. *Optional:* Apply 3M™ Knifeless™ Tape Precision Line on vehicle seams as desired.
5. Measure the vehicle wrap area.
6. Cut the film to size.

Additional considerations prior to installation:

- Textured, metallic, pearl, and color flip films may have a directional characteristic to their appearance. For the best overall appearance, install the film in a consistent orientation through the entire installation. 3M recommends checking the film's orientation and color prior to installation. Do NOT alternate the film's orientation from panel to panel.
- Lot-to-lot variations are uncommon in 3M™ Protection Wrap Film colors as 3M has specifications in place to prevent large color variations. However, film colors can vary slightly from lot to lot. Use the same lot number of film for an entire vehicle to ensure a consistent appearance.

Installation Instructions

1. *Optional:* Mist the liner and cap sheet with water to help reduce static cling.

NOTE

Do NOT over wet the film, always keep the vehicle dry. This film is intended for dry application techniques only. NEVER use a wet application method to apply this film.

2. Remove and discard the film liner.
3. Gently lay the film over the installation area. Keep the film taut and flat to minimize wrinkles.
4. Rough trim the excess film. Pre-heating the blade can make cutting easier.
5. *Optional:* Remove and discard the cap sheet. Some installers prefer to keep the cap sheet on during installation for a stiffer handling experience.
6. Gently lift and cold stretch the film to make it taut and smooth.
7. Correct any wrinkles, creases, and tack points.
8. Cold form the corners, making sure not to overstretch the film.
9. Remove and discard the cap sheet if it was not removed previously.
10. If there are any adhesive markings, gently lift the film off the vehicle, starting with the high points, and use a heat gun set to 200°F to 220°F (93.3°C to 104.4°C) to fix adhesive markings.
11. Use a WrapGlove® GHOST™ glove to apply film to the high points.
12. Palm stretch the film into recesses.
13. Install the flat area using the palm of the WrapGlove® GHOST™ glove or apply the film with a squeegee, working in 1 in. to 2 in. (2.5 cm to 5.1 cm) overlapping strokes at a 45-degree squeegee angle.

NOTE

Squeegees should either be sprayed with a mixture of 70% isopropyl alcohol and 30% deionized water, placed inside the WrapGlove® GHOST™ glove, or placed in a squeegee sleeve. This helps the squeegee slide across the film.

14. Use the palm of the wrap glove to slowly push the air out the sides of the film.
15. Finish trimming excess film using a blade and/or 3M™ Knifeless™ Tape.
16. Heat set the corners to 200°F to 220°F (93.3°C to 104.4°C).
17. Fold the film under all vehicle edges.
18. Heat set the film edges to 200°F to 220°F (93.3°C to 104.4°C). This helps prevent the film from lifting over time.

Health and Safety

Tools and Equipment Usage

When using any equipment, always follow the manufacturer's instructions for safe operation.

Chemicals

When handling any chemical products, read the manufacturers' container labels and the Safety Data Sheets (SDS) for important health, safety, and environmental information.

[Follow this link to obtain SDS sheets for 3M products.](#)

[Follow this link to obtain information about substances of very high concern \(SVHC\) for EU products.](#)

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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. Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment, reviewing all applicable regulations and standards, and reviewing the product label and use instructions. Failure to properly evaluate, select, and use a 3M product in accordance with instructions or to meet all applicable safety regulations may result in injury, sickness, death, and/or harm to property.

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How much stretch can be applied to the film during installation?

3M recommends not stretching 3M™ Protection Wrap Film more than 15%. Overstretching the film can crack the clear coat or cause adhesive marking when applying the film to complex areas.

Does 3M™ Protection Wrap Film have a conformable protective film layer (PFL) on its surface?

No. 3M™ Protection Wrap Film does not have a PFL. Gloss colors have a cap sheet that help protect the film until it is used.

Does the vehicle's condition impact the look of 3M™ Protection Wrap Film?

All wrap films, including 3M™ Protection Wrap Film, should be applied to a "like new" vehicle finish for the best results. 3M's warranty only applies to vehicles that have an excellent bond between the paint and the vehicle substrate. Any rust, bubbling, scratches, dents, or other damage will be visible through the film, and such imperfections may damage the film or cause the film to fail prematurely. Areas repaired with body filler must be sanded, epoxy primed, and, for best results, finished with an original equipment manufacturer paint or clear coat. Any recently applied finish must be fully cured according to the paint manufacturer's directions before film is applied.

Any defect in the paint—including scratches, dents, bubbling, pitting, fisheyes, and orange peel—may be visible through 3M™ Protection Wrap Film, especially when using the flat, gloss colors. 3M recommends a professional paint correction be performed when heavy orange peeling is present on a vehicle prior to installing 3M™ Protection Wrap Film. Failure to do so will result in high gloss films taking on the orange peel appearance. Wrap shops should set proper expectations for their customers before installing any 3M™ Protection Wrap Film.

How do I clean the vehicle properly before applying film?

Cleaning the application surface properly is one of the most important steps to a good application. See the [3M™ Vehicle Prep for Success Guide](#) for details.

Working with 3M™ Protection Wrap Film high gloss films requires a clean installation environment. Keep the floors clean of dust and debris to lessen the chance of contaminants getting under the film. Lint-free clothing and hair covers may also be necessary. Film should be installed immediately after the installation surface has been cleaned.

When should I remove the cap sheet?

The cap sheet on the gloss films can be left on for the entire installation, but it MUST be removed before post-heating. Some installers prefer to keep the cap sheet on for flat surface applications and remove it before curved surface applications. The cap sheet MUST be removed before the final squeegee and inspection and before applying heat to the film.

Can I use ceramic coating or ceramic boost spray?

Yes, 3M™ Ceramic Coating 39901 and 3M™ Ceramic Boost Spray 39905 can be used with 3M™ Protection Wrap Film.

Can I print on 3M™ Protection Wrap Film?

No. 3M™ Protection Wrap Film is available in many colors, textures, and finishes, and is intended to be used without further processing. 3M has other printable film options for vehicles; ask a 3M sales representative for more information.

Is the cap sheet on 3M™ Protection Wrap Film gloss films recyclable?

The cap sheet is made of PET. Recycling programs vary from country to country and may not be available in a given area. Ask the local solid waste authority about their plastic Number 1 recycling program.

Can I use 3M™ Knifeless™ Tape with 3M™ Protection Wrap Film?

Yes, 3M™ Protection Wrap Film is compatible with 3M™ Knifeless™ Tape Precision Line and 3M™ Knifeless™ Tape Design Line. See [3M.com/knifelesstapes](https://www.3m.com/knifelesstapes) for further information.

Does 3M™ Protection Wrap Film exhibit lot to lot variations in color?

Lot-to-lot variations are not common in 3M™ Protection Wrap Film colors as 3M has specifications in place to prevent large color variations. However, film colors can vary slightly from lot to lot. To ensure the most consistent color, use the same film lot number for an entire installation.

Do some films appear to change color if applied in different directions?

Yes. Certain 3M™ Protection Wrap Film colors, such as textured, metallic, pearl, and color flip films may have a directional characteristic to their appearance. To achieve the best overall appearance, install the film in a consistent orientation for the entire installation. 3M recommends checking the film's orientation and color prior to installation. Do NOT alternate a film's orientation from panel to panel.

What is the best way to handle and store partial remaining rolls of film?

3M recommends holding the top of the core with one hand and firmly pulling any slack out of the roll. Then tape from the center out to the edges while keeping the roll tight. Additionally, replace the endcaps before placing in a box.

What is the warranty on the new 3M™ Protection Wrap Film?

10-year consumer warranty backed by 3M. Ask a 3M authorized installer or see the warranty card for complete details.

Installation Overview

Where can I get complete installation details?

See the [3M™ Protection Wrap Film Installation Guide](#). Additionally, 3M offers world-class training for professional growth, as well as opportunities to earn an installer endorsement from 3M and be listed on the 3M website.

Is film primer required on complex curves?

3M recommends using 3M™ Primer 94 to maximize a film's bond to the substrate in any areas that will be stretched, particularly on the edges of the film.

Consult air quality regulations before using 3M™ Primer 94.

Can I wet-apply 3M™ Protection Wrap Film?

No. 3M does NOT recommend or warrant using a wetting solution on the vehicle surface when applying any film with air release channels. The installer may use a wetting solution on top of the film layer to provide some slip resistance for the squeegee.

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