3M[™] Scotchprint® Wrap Film

Series 1080 DISTINCTIVE INNOVATIVE

Meet the new standard in wrap films

Refuse to be ordinary. Refuse to blend in. 3M[™] Scotchprint® Wrap Film Series 1080 is a distinctive way to make you and your car—stand out in the crowd.

DISTINCTIVE

Stand out in the crowd with film series 1080. Choose from a variety of finishes, textures and colors that offer a unique, head-turning look.

INNOVATIVE

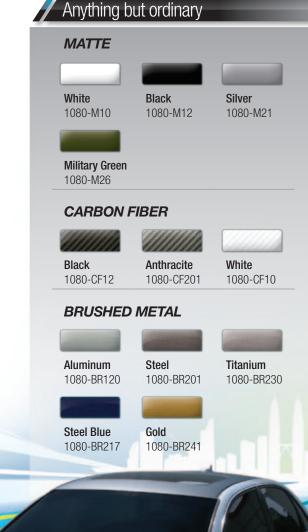
3M is a leader, not a follower, and we're passionate about offering you the most innovative vehicle personalization products.

TRUSTED

Create a look that says you set your own course. Trust that look to the 3M brand promise of quality, reliability, service and warranty.

Professional installation required.

GET SAMPLES AND FIND MORE INFORMATION AT: www.3Mgraphics.com/1080 Follow 3M Graphics on Facebook and Twitter





3M[™] Scotchprint® Wrap Film

Series 1080



Taking best-in-class to a new level for your business

3M[™] Scotchprint® Wrap Film Series 1080 doesn't just cover doors, it opens doors. Be ready to offer your customers the opportunity to create a truly distinctive look for their vehicle, truck or even their boat with this innovative series of matte and 3-D textured films.

OUT OF THE BOX

No printing. No overlaminate. Open the box and start wrapping.

GREAT HANDLING

3.5 mil dual cast film provides just the right amount of rigidity with no application tape.

EASY INSTALLATION

The same features you love in Controltac[™] Graphic Film with Comply[™] Adhesive: slideable and repositionable pressure-activated adhesive with non-visible air release channels for virtually no air bubbles.

NO SEAMS

60" wide rolls mean you can cover entire sections.

MORE BUSINESS

Satisfied customers showcase their vehicles and generate referrals for your business.

3M quality, reliability, service and warranty. Being best-in-class demands it.

It's what you need when you think outside the car, the truck, the boat.

USE IT FOR:

Hoods

Roofs

Trunk lids

Bumpers

Door panels

Racing stripes

Exterior mirror covers

Or wrap the entire vehicle!

WATCH FOR MORE COLORS AND TEXTURES COMING YOUR WAY!



3M Graphics Market Center 3M Center Building 220-12E-04 St. Paul, MN 55144 USA General Information: 1-800-374-6772 Technical Information: 1-800-328-3908

www.3Mgraphics.com

Release C. April 2011
Please recycle. Printed in U.S.A.

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75-5100-3994-6

WARRANTY and LIMITATIONS: The following is made in lieu of all other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose: The product warranty is as set forth in the Product Bulletin 1080. Also see the Graphics Market Center Warranty Brochure which may provide additional limitations of warranty, and liability, if any.

1. Product Description

3MTM Scotchprint® Wrap Film Series 1080 are long-term, removable, dual cast films are designed for solid color vehicle detailing, decoration and full wraps without graphic protection. This film's pressure-activated adhesive allows it to slide and be repositioned until firm pressure is applied. The non-visible air release channels assure fast, easy and virtually bubble-free installations. These vinyl films (minimum 3.5 mil) are sold in 60 inch rolls, allowing almost any section of a vehicle to be wrapped without seams.

2. Recommended Types of Graphics and End Uses

When used as described in this Bulletin, these types of graphics and end uses are warranted by the 3MTM MCSTM Warranty. Please read the entire Bulletin for additional details.

- Standard vehicle graphics, detailing and decoration
- Commercial vehicle and fleet graphics, emblems or striping
- · Watercraft graphics applied above the static water line only

Note: Before using these films, please review the handling guidelines in Section 8.A.

A. Limitations of End Uses

This 3M film is not designed or recommended for the following uses. Please contact us to discuss other options.

(1) Unsuitable End Uses for This Film

- Film applied to:
 - stainless steel
 - non-3M films (see Removal Warranty)
 - watercraft when the film is below the static water line
 - watercraft graphics that are not edge sealed
 - Non-OEM painted substrates on most vehicles
 - painted substrates with poor paint-to-substrate, or paint-to-paint bond
 - substrate surfaces that are not clean and smooth (little or no variation in texture)
- Cut and weed applications where the application tape must adhere to the exposed liner
- Graphic removal from:
 - substrates with poor paint-to-substrate adhesion
 - existing graphics that must remain intact; damage may occur during removal of film
- Graphics subjected to gasoline vapors or spills, including those at or on gas pumps, automobile fuel-tank ports, watercraft or top-feeding, petroleum tankers

These are typical values for unprocessed product. Processing may change the values. Contact your 3M representative for a custom specification.

3. Characteristics

A. Physical Characteristics

Characteristic	Value
Film	Vinyl, cast
Film color New!	1080-M10 Matte White 1080-M21 Matte Silver 1080-M12 Matte Black 1080-M26 Matte Military Green 1080-CF10 Carbon Fiber White 1080-CF12 Carbon Fiber Black 1080-CF201 Carbon Fiber Anthracite
	1080-BR120 Brushed Aluminum 1080-BR201 Brushed Steel 1080-BR217 Brushed Blue Steel 1080-BR230 Brushed Titanium 1080-BR241 Brushed Gold
Adhesive color	Gray

continued on the next page

Physical Characteristics, continued

Characteristic	Value	Value		
Thickness	Value for 1080-M12 given; other films may vary			
	Without adhesive: 3.5 mil (0.16 mm) With adhesive: 4.5 mil (0.11 mm)			
Adhesive	Pressure-activated, slideable, I	Pressure-activated, slideable, repositionable, air release channels		
Liner	Polyethylene-coated paper			
Adhesion, Typical 24 hours after application	Substrate	Adhesion		
	ABS	4.2 pounds/inch (0.75 kg/cm)		
	Acrylic enamel	3.5 pounds/inch (0.63 kg/cm)		
	Automotive clear coats (OEM)	3 – 5 pounds/inch (0.54 – 0.89 kg/cm)		
Tensile strength	5 pounds/inch at 73°F (0.9 kg/cm at 23°C)			
Chemical resistance	 Resists mild alkalis, mild acids, and salt Excellent resistance to water (does not include immersion) Resists occasional fuel spills 			
Flammability	Call 1-800-328-3908 for information			

B. Application Characteristics

Characteristic	Value	
Finished graphic	Surface type: Flat, simple curves, moderate compound curves	
application recommendation	Substrate type: ABS resins, chrome, glass, paint (check adhesion to powder-coated or water-based paints) fiberglass with gel coat	
Application temperature: 60°-90°F (16°-32°C)		
	Application method: Dry	
Applied shrinkage	0.015 inches (0.4 mm)	
Temperature range after application	-65° to +225°F (-60° to +107°C)	
Graphic removal	Removable with heat and/or chemicals from most substrates within the warranty period at 50°F (10°C) minimum (air and substrate)	

4. Definitions

A. Exposure Types

U.S. Vertical Exposure



face of graphic-

The face of the graphic is \pm 10° from vertical.

U.S. Non-vertical Exposure

osure face of graphic

The face of the graphic is greater than 10° from vertical and greater than 5° from horizontal. This includes non-vertical surfaces of vehicle wraps or fleet graphics.

U.S. Horizontal Exposure e of graphic

The face of the graphic is \pm 5° from horizontal.

U.S. Desert Southwest Exposure Any outdoor graphic exposed to solar energy more than half of the daylight hours in Arizona, New Mexico and the desert areas of California, Nevada, Utah and Texas is subject to reduced warranties. A detailed map is available at 3Mgraphics.com under Warranties.

B. Vehicle Types

Standard Vehicle Buses, vans, and automobiles unless otherwise noted.

Fleet Vehicle

Straight trucks, semi-tractors and trailers used in commercial fleets.

Excludes air shields.

Watercraft

Boats intended for personal pleasure such as runabouts and speedboats having aluminum and/or smooth fiberglass/gel coat bodies, including boats used in fishing tournaments and off-shore racing boats, but not 1 to 3 person personal watercraft or other boats used in connection with commercial or business enterprise. 3M specifically excludes all other recreational vehicles from this definition.

5. Warranty Information

A. Limitations and Disclaimers Applicable to All Warranties & Warranty Coverage Overview Both the warranty coverage and the durability for each graphic is based on the user(s) reading and following all applicable and current 3M Product and Instruction Bulletins. 3M will honor the Warranted Durability stated in the base film or substrate Product Bulletin that is current when the film was purchased. Warranted durabilities may be reduced and stipulations may apply for certain constructions and applications, as covered in this Bulletin.

The following is made in lieu of all other express or implied warranties, including any implied warranty of **merchantability** or fitness for a particular purpose or implied warranty arising out of a course of dealing, custom or usage of trade. 3M will replace or refund the price of any 3M materials that do not meet this warranty within the specified time periods. These remedies are exclusive. **In no case shall 3M be liable for any direct, indirect, or consequential damages, including any labor or non-3M materials charges.**

See the 3M Graphics Market Center Warranty Brochure at 3Mgraphics.com, which gives the terms, additional limitations of the warranty, if any, and limitations of liability.

B. 3M Basic Product Warranty

All 3M products are warranted to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in this Product Bulletin and as further set forth in the 3M Graphics Market Center Warranty Brochure.

C. 3M[™] MCS[™] Warranty Subject to Stipulations set forth in Section D., below

3 Years for Standard U.S. Vertical Exposure

(1) Unprinted Film with No Graphic Protection, and a U.S. Vertical Exposure For unprinted film, 3M offers:

- Warranted Durability for finished graphics covered by the 3MTM MCSTM Warranty.
- Expected Performance Life as a good faith estimate of how long unprinted product may perform satisfactorily based on 3M testing. However, there is no warranty for performance or durability.

		Years	
	Ink and Graphic Protection	Matte or Gloss	Carbon Fiber or Brushed Metal
3M™ MCS™ Warranty Durability	None	3	3
Expected Performance Life, Unwarranted	None	7	5

(2) Removal Warranty with Heat or Chemicals

Within the stated warranted durability period in this Bulletin, if this film cannot be removed with heat and/or chemicals, or if more than 30% of the adhesive residue remains on the substrate, 3M will reimburse a reasonable portion of extra removal costs.

a. Removal Warranty Exceptions

The following exceptions are not covered by the Removal Warranty.

- Substrate damage due to:
 - removing film from a pre-existing graphic
 - removing film that was applied to painted wallboard
 - removing film from paint that is not firmly bonded to the substrate

- No guarantee is made for:
 - ease or speed of removal of any graphic
 - removal from paint that is improperly cured
 - removal from aged paint or metals, surface oxidation or chalking; user must test, approve and accept liability for such applications
 - removal from horizontally-exposed outdoor applications
- b. Removal Remedy
- The remedy for graphics covered by the 3MTM MCSTM Warranty is labor reimbursement for documented excessive removal costs.

D. General Warranty Stipulations for 3M[™] MCS[™] Warranty These stipulations apply to graphics covered by the 3MTM MCSTM Warranty. Specific provisions of these stipulations are found in the *3M Graphics Market Center Warranty Brochure* at 3Mgraphics.com.

(1) Reduced Warranted Durability for Non-vertical Graphics

For graphics oriented in a non-vertical, outdoor exposure, multiply the warranted durability years by the percentage shown for the intended graphic exposure.

If the Graphic Exposure is:	Use this Percentage of U.S. Vertical Exposure, Warranted Durability	Calculation Examples
U.S. Non-vertical	50% (0.50)	$0.50 \times 3 \text{ years} = 1.5 \text{ years}$
U.S. Horizontal	35% (0.35)	$0.35 \times 3 \text{ years} = 1.05 \text{ years}$
U.S. Desert Southwest Vertical	70% (0.70)	0.70 x 3 years = 2.1 years
U.S. Desert Southwest Non-vertical	35% (0.35)	0.35 x 3 years = 1.05 years
U.S. Desert Southwest Horizontal	0%	0

(2) Abrasion and Loss of Gloss

Abrasion damage and loss of gloss are not covered by any 3M warranty. This is considered normal wear and tear.

(3) Application Outside the U.S.

Contact the 3M organization for that country.

(4) Application to Glass

3M accepts no liability for glass breakage when using this film for window graphics. See Instruction Bulletin 5.1 for details.

(5) Graphics Made with Components Not Sold or Recommended by 3M The 3MTM MCSTM Warranty does not, under any circumstances, cover graphics made with any product not sold or recommended by 3M. The user is solely responsible for the appearance, performance and durability of any graphic that includes a non-recommended or non-qualified product.

6. Factors that Affect Graphic Performance Life

The actual performance life of a graphic is affected by all of the following.

- · Selection, condition and preparation of the substrate
- Surface texture
- Application methods
- Angle and direction of sun exposure
- · Environmental conditions
- Cleaning or maintenance methods
- 7. Graphics Manufacturing

This film is intended for solid color vehicle detailing, decoration and full wraps without graphic protection. Cutting may be required.



Before using any equipment, always follow the manufacturers' instructions for safe operation.

A. Cutting

(1) Methods

The following are common cutting methods for this film. See Instruction Bulletin 4.1 for details.

- Bandsawing
- Hot kiss cutting
- · Hot and cold steel rule
- Drum-type electronic cutting
- Flat-bed electronic cutting
- Guillotine
- Hand cut
- Cold and hot steel-rule die cutting

Important Note!

The thickness and texture of this film makes it more difficult to cut and weed cleanly. Use clean, sharp, properly aligned blades. The user must assume responsibility of the outcome, so always test and approve before cutting a large job.

(2) Size of Cut Text

These values are based on upper case Helvetica medium type. Weeding will be more difficult with smaller text.

Important Note!

These films are thicker than other wrap films and have some to significant texture. Use great care when cutting and weeding. Make sure the cutting blades are sharp, clean and properly set. Always test and approve before committing to a job.

Minimum stroke width:

Minimum height:

Minimum radius for end of stripe:

0.25 inch (6.35 mm)

3.0 inch (76.2 mm)

0.125 inch (3.18 mm)

B. Application Tape

Important Note!

The texture on film series 1080 makes it difficult for any application tape to properly adhere to the film. If used, apply the graphic as soon after cutting and applying an application tape as possible. Always test and approve before committing to a job.

Use an application tape to:

- Hold cut and weeded letters or graphics in registration after removing the film liner.
- Protect cut graphic parts from scratching or damage during application.
- Use when large amounts of liner are exposed.

Note: 3MTM Prespacing Tape SCPS-55 is the only recommended tape, although does not adhere to the exposed liner of this film, but it does adhere to the top of the film. Therefore, prespacing tape may still be useful when applying large graphics—even large cut graphics—with some smaller cut and weeded graphics to hold the elements in alignment.

8. Application and Installation

Install the film using the dry application method after ensuring that the vehicle is freshly washed and dried to remove all contaminants.

Refer to the **3M Related Literature** section, located at the end of this bulletin, for a list of the Instruction Bulletins that may be needed to apply or install this film.

Important Note!

Never use a wet application method to apply this film.

A. Handling Textured Films

- Align the graphic using masking tape, never a grease pencil.
- Use a felt squeegee for installing the film to minimize scratching.
- Use a heat gun instead of a torch, when heat is needed. A torch is likely to alter the
 appearance of the finish.

B. Adhesive and Air Removal Channel Characteristics

This film has a pressure-activated adhesive that allows the film to slide easily on the substrate, be positioned with light finger pressure, and repositioned if it is not in the right place. However, by design so that a good adhesive bond is established, the positionability feature is lost:

- When firm pressure is applied with a squeegee or other application tool
- At application temperatures above 100°F (38°C) even if only light finger pressure was used for tacking
- If any part of the film is removed from the original liner and reapplied to the same or another liner.

This film also has air release channels that are virtually invisible after film installation. Be aware that removing and attempting to change liners or reapply the same liner damages air release channels.

Always work from the center out to the edges of the graphic to allow trapped air to exit through the air release channels. If the channels are closed off by firm pressure and air is trapped, use an air release tool to aid in removing air bubbles. See Instruction Bulletin 5.4 for details.

C. Application and Finishing for Vehicles

Read and follow all instructions, and complete the *3M Automobiles, Vans and Buses Pre-installation Inspection Record* in Instruction Bulletin 5.36 <u>prior to</u> manufacturing or applying any graphic to a standard vehicle, van or bus.

D. Application and Finishing for Watercraft

Read and follow all instructions, and complete the *3M Watercraft Graphics Pre-installation Inspection Record* in Instruction Bulletin 5.42 <u>prior to</u> manufacturing or applying any graphic to a watercraft.

Graphics applied to watercraft require edge sealing. Refer to Instruction Bulletin 5.42 for details.

Maintenance and Cleaning

Use care to avoid scratching the film. Never scrub the film. Scratching and abrasion marks may be visible and you may not be able to work them out of the unique finish of the film. Avoid using harsh chemicals and brushes when cleaning your vehicle, and avoid parking near shrubs and trees or any other items that could scratch the vehicle.

Use a cleaner designed for high-quality painted surfaces. The cleaner must be wet, non-abrasive, without strong solvents, and have a pH value between 3 and 11 (neither strongly acidic nor strongly alkaline.). Rinse thoroughly after cleaning and dry with a clean, soft cloth or soft rubber squeegee to avoid water spots.

Do not apply waxes or polishes to this film. If there is wax and wax residue on the surface, remove with an all-purpose cleaner. To help restore the film's finish clean the film with isopropyl alcohol and water (ratio 2:1).

See Instruction Bulletin 6.5 for details.

10. Removal

Removal requires heat and/or chemicals. See Instruction Bulletin 6.5 for details.

11. Shelf Life, Storage and Shipping

A. Shelf Life

Total shelf life: 3 years from the date of manufacture on the original box. Install immediately after cutting and applying application tape.

- B. Storage Conditions
- 40° to 100°F (4° to 38°C)
- Out of sunlight
- · Clean dry area
- Original container
- Bring the film to room temperature before using
- C. Shipping Finished Graphics

Flat, or rolled color-side-out on 6 inch (15 cm) or larger core. This helps prevent the application tape, if used, from popping off.

12. Health and Safety



CAUTION

When handling any chemical products, read the manufacturers' container labels and the Material Safety Data Sheets (MSDS) for important health, safety and environmental information. To obtain MSDS sheets for 3M products go to <u>3M.com/MSDS</u>, or by mail or in case of an emergency, call 1-800-364-3577 or 1-651-737-6501.

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

13. 3M Related Literature

Before starting any job, be sure you have the most current Product and Instruction Bulletins.

The information in 3M Product and Instruction Bulletins is subject to change. Current Bulletins are available at 3Mgraphics.com. The following applicable Bulletins provide information and processes you need to properly make the graphics described in this Bulletin. Additional Bulletins may be needed as indicated in the 3M Related Literature section of other 3M components you use.

Bulletin types: PB = Product Bulletin; PB-IB = Product & Instruction Bulletin; IB = Instruction Bulletin

Subject		Bulletin No.	
Design of graphics	IB	2.1	
Scoring and cutting	IB	4.1	
Using 3M application tapes; premasking and prespacing for films	IB	4.3	
Application, substrate selection, preparation and substrate-specific application techniques	IB	5.1	
Application, special applications and vehicles	IB	5.4	
Application techniques for automobiles, vans and buses, and inspection forms	IB	5.36	
Application: special considerations for watercraft		5.42	
Storage, handling, maintenance, removal	IB	6.5	
3M Graphics Market Center Warranty Brochure www.3Mgraphics.com, Warranties			

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14. Bulletin Change Summary

Added white carbon fiber 1080-CF10. Added Expected Performance Life to page 3.



Commercial Graphics Division

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