



# 3M™ Wrap Film

## Series 1380

### Product Bulletin

#### Product Description

3M™ Wrap Film 1380 is a long-term, cast film designed for solid color vehicle detailing, decoration and full wraps without the need of additional graphic protection.

Wrap Film Series 1380 offer excellent conformability for applications on recesses and deep channels.

These vinyl films are sold in 1.52 m wide rolls, allowing almost any section of a vehicle to be wrapped without seams.

The films are shortly resistant against petrol spillage and extremely resistant to all atmospheric influence.

3M™ Wrap Film 1380 uses 3M™ Controltac™ and 3M™ Comply™ technology.

3M™ Controltac™ minimizes the initial contact area of the adhesive and allows the applicator to reposition the film during application.

This allows easier installation of large format graphics in a wide temperature range.

3M™ Comply™ are air release channels allowing fast and easy, bubble-free application of films.

<b>Product Line</b>	Car wrapping	1380-GX	X = color code, glossy, permanent adhesive with Comply™.
		1380-SX	X = color code, satin, permanent adhesive with Comply™.
		1380-MX	X = color code, matte, permanent adhesive with Comply™.

#### Product Characteristics

##### Physical & Application

These are typical values for unprocessed products.

Contact your 3M representative for a custom specification.

Material	cast vinyl	
Surface finish	glossy and satin matte	
Thickness (film)	90 µm (0.09 mm)	
Adhesive type	solvent acrylic, pressure-sensitive, repositionable	
Adhesive appearance	clear	
Liner	double-sided Polyethylene coated paper	
Adhesion	approx. 18 N/25 mm	FTM 1: 180° peel, substrate: glass; cond: 24 h 23°C/50%RH

Additional reference Automotive paint: approx. 11 N/25 mm - approx. 22 N/25 mm

Application method dry only!

Applied shrinkage < 0.4 mm FTM 14

Application temperature minimum (air and substrate)	+16°C	for flat surfaces
	+16°C	for curved to corrugated surfaces with and without rivets
	+16°C	for surfaces with deep channels

Service temperature after application -60°C to +107°C

Surface type flat to curved, incl. rivets, corrugations and deep channels

Substrate type aluminum, glass, PMMA, PC\*, ABS, paint

\*Might require drying with heat before use

Graphic removal Removable with heat and/or chemicals from supported substrates.

No liability is given for ease or speed of removal of any graphic. Pay attention to adequate air and substrate temperature.

**Storage** Shelf life Use within two years from the date of manufacture on the sealed original box. Use within one year after opening the box.

Storage conditions +4°C to +40°C, out of sunlight, original container in clean and dry area.

**Flammability** Flammability standards are different from country to country. Ask your local 3M contact for details, please.

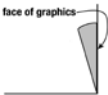
**Durability** Unprocessed film The following durability data are given for unprocessed film only!

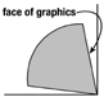
3M™ MCS™ Warranty In addition, 3M provides a warranty on a finished applied graphic within the framework of 3M™ MCS™ warranty programs. Visit [www.3mgraphics.com](http://www.3mgraphics.com) for getting more details about 3M's comprehensive graphic solutions.

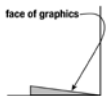
Climatic zones Graphic durability is largely determined by the climate and the angle of exposure. Find below a table showing the durability of a product according to the angle of exposure and the geographical location of the application.

Zone 1 Northern Europe, Italy (north of Rome), Russia  
 Zone 2 Mediterranean area without North Africa, South Africa  
 Zone 3 Gulf area, Africa

Exposure types

Vertical:  The face of the graphic is ±10° from vertical.

Non-vertical:  The face of the graphic is greater than 10° from vertical and greater than 5° from horizontal.

Horizontal:  The face of the graphic is ±5° from horizontal.

Interior: Interior means an application inside a building without direct exposure to sunlight.

	Zone 1	Zone 2	Zone 3
<b>Vertical outdoor exposure</b>			
white/black	6 years	4 years	3 years
colors	5 years	3 years	2.5 years
metallics	5 years	3 years	2.5 years
<b>Non-vertical outdoor exposure</b>			
white/black	4 years	2.5 years	2 years
colors	3 years	1.5 years	12 months
metallics	3 years	1.5 years	12 months
<b>Horizontal outdoor exposure</b>			
white/black	3 years	2 years	12 months
colors	2 years	12 months	6 months
metallics	2 years	12 months	6 months
<b>Interior application</b>			
interior	10 years	10 years	10 years

## Limitations of End Uses

3M specifically does not recommend or warrant the following uses, but please contact us to discuss your needs to recommend other products.

Graphics applied to

- low surface energy substrates or substrates with low surface energy coating.
- stainless steel.
- surfaces not clean and more than moderate textured.
- surfaces with poor paint to substrate adhesion.
- watercraft when the graphic is applied below the static water line.
- watercraft graphics that are not edge sealed.
- non-OEM painted substrates on most vehicles.
- vehicles which will be subject to stone chip damage.

Graphic removal from

- signs or existing graphics that must remain intact.
- vehicles which do not have the original OEM paint applied.

Graphics subjected to

- regular exposure to gasoline vapors or spills at gas pumps, automobile fuel-tank ports.
- cut and weed applications where the application tape must adhere to the exposed liner.

Important Notice

- 3M Commercial Solutions products are not tested against automotive manufacturer specifications!
- To avoid color variations all pieces of applied film of one colored area should be processed out of one lot of material.

## Graphics Manufacturing

Flat, or rolled film side out on 130 mm (5 inch) or larger core. These methods help to prevent the liner from wrinkling or application tape, if used, from popping off.

Shipping finished graphics

## Application

See product bulletin ATR 'application tape recommendations' for information about selection and use of suitable application tapes for this product, please.

[> Product Bulletin Application Tape Recommendations <](#)

Refer to Instruction Bulletin 5.5 'General Procedures for Interior and Exterior Dry Application', for general application information.

[> Instruction Bulletin 5.5 'General Procedures for Interior and Exterior Dry Application' <](#)

Important Notice

Post-heating of edges is required at temperatures of at least 85°C.  
Post-heating of recesses and deep channels is required at temperatures of 85°C to 100°C.  
Air bubbles between film and substrate must be removed to ensure lifting resistance.  
If overlaps are necessary, place cut edge to non-visible side.  
Post-heating of overlaps in recesses and deep channels is required at least at 120°C.

**Films require high squeegee pressure to avoid air entrapment between film and substrate. Therefore the use of 3M™ PA-1 Gold Squeegee with thin and soft sleeve (e.g. microfibre) is recommended.**

Wetting of sleeves helps to avoid scratches on film surface during application.

Excessive heat and stretch of light colors might result in change of gloss and colors.

Removal of film is recommended at film surface temperatures between 50°C and 60°C. For fast heating of larger film areas the use of infrared heater (2000 W, e.g., TERM 2000 CVH from company Burda Worldwide Technologies GmbH) is recommended.

Color appearance of light colored films (e.g., white) might slightly change when applied on differently colored car paints.

Refer to Instruction Bulletin 1380 '3M™ Wrap Film Series 1380 Application on Substrates with Recesses', for detailed application information.

[> Instruction Bulletin 1380 'Application on Substrates with Recesses' <](#)

## Maintenance and Cleaning

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).

Refer to Instruction Bulletin 6.5 'storage, handling, maintenance and removal of films and sheetings', for general maintenance and cleaning information.

[> Instruction Bulletin 6.5 'Storage, Handling, Maintenance and Removal of Films and Sheetings' <](#)

Notice! The brushes and the wax used at automated car wash will cause that matte colors appear more and more glossy.

## Important Safety Remark

Application to glass

The application of colored or printed film onto glass can lead to glass breakage through thermal expansion of the glass. The local conditions must be examined for the danger of glass break by uneven heat absorption through sun exposure. Type of glass (insulation glass, float glass, LSG, toughened safety glass, semi-tempered glass, etc.), glass dimension, joint condition, flexibility of the sealant, quality of the edge finishing, geographical orientation and partial shadow during sun exposure are the determining factors. Light color designs and application on the outside of the window are to be preferred. A free non-applied framework of 4 mm around the entire window front can help to dissipate the absorbed warmth. According to common knowledge a thermal crack can occur at temperature differences of approx. 130°C (toughened safety glass), approx. 40°C (float glass) or approx. 110°C (semi-tempered glass). Coldest place is usually under the framework in the embedded joined window part, the warmest place is typically on the darkest place in the format. Because of the many above mentioned factors, glass breakage cannot be fully predicted, therefore 3M does not accept liability for glass breakage when using this film for window graphics.

## Remarks

Important notice

This bulletin provides technical information only.

All questions of warranty and liability relating to this product are governed by the terms and conditions of the sale, subject, where applicable, to the prevailing law.

Before using, the user must determine the suitability of the product for its required or intended use, and the user assumes all risk and liability whatsoever in connection therewith.

Additional Information

Visit the web site of your local subsidiary at [www.3Mgraphics.com](http://www.3Mgraphics.com) for getting:

- more details about 3M™ MCS™ Warranty
- additional instruction bulletins
- a complete product overview about materials 3M is offering



Commercial Solutions Division

Hermeslaan 7

1831 Diegem, Belgium

Responsible for this technical bulletin

3M Deutschland GmbH | Safety & Graphics Laboratory

Carl-Schurz-Str. 1 | 41453 Neuss, Germany

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