

Product Description

3M™ Wrap Film 1080-GC451 Gloss Silver Chrome is designed for detailing and decoration without the need of additional graphic protection.

1080-GC451 is sold in 1.52 m wide rolls. The mirror-like film surface is covered by a matte protective sheet which needs to be removed prior to application.

The film provides excellent opacity to hide high contrast surfaces.

1080-GC451 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.

Important Notice

Before using gloss silver chrome wrap, please ensure compliance with all applicable laws and regulations. Restrictions on chrome wraps may vary by jurisdiction. You accept responsibility for legal and regulatory compliance and for any liability arising from your use of gloss silver chrome wrap.

Product Line

Wrap Film 1080-GC451

– GC = Gloss Chrome, adhesive with Comply™

Product Characteristics

Physical & Application

These are indicative values for unprocessed products. Contact your 3M representative for a custom specification.

Characteristic	Value	
Material	Multi-layer non-PVC	
Surface finish	Glossy	
Thickness	150 µm with adhesive (not including protective sheet)	
Adhesive type	Solvent acrylic, pressure-sensitive, repositionable	
Liner	Double-sided Polyethylene coated paper	
Adhesion (Substrate: aluminium)	11 N/25 mm	Typical peel 24 hrs after application
Additional reference	Automotive paint: 11 N/25 mm - 22 N/25 mm	
Application method	dry only!	
Applied shrinkage	< 0.4 mm	FTM 14

Characteristic	Value	
Application temperature (minimum air and substrate)	+16°C	for flat surfaces
	+16°C	for curved to corrugated surfaces, with and without rivets
Service temperature (after application)	-60°C to +107°C	(not for extended periods of time at the extremes)
Surface type	flat to simple curved and moderate compound curves typical to personal vehicles	
Substrate type	aluminium, PMMA, PC*, ABS, paint *Might require drying with heat before use	
Graphic removal	Removable with heat and/or chemicals from supported substrates. Note: This product may not remove similarly to other 3M™ Wrap Film Series 1080 films. No liability is given for ease or speed of removal of any graphic. Pay attention to adequate air and substrate temperature.	

The values above are the results of illustrative lab test measurements and shall not be considered as a commitment from 3M.

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.

The shelf life as defined above remains an indicative and maximum data, subject to many external and non-controllable factors. It may never be interpreted as warranty.

Flammability

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

Durability

3M does not warrant the durability of this product, as the durability and other performance characteristics may not match that of other 3M™ Wrap Film Series 1080 films.

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 that are not clean and more than moderate textured.
- surfaces with poor paint to substrate adhesion.
- other than flat or simply curved surfaces.
Note: When used on more difficult surfaces stress relief cuts are recommended.
- 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.

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

When converting and sampling 1080 GC451 you must always ship and store the product on a core, preferably 130 mm (5 inch) or larger core. The paper liner should be facing the core and the material should be wrapped tightly to prevent liner from wrinkling (tunneling) or application tape, if used, from popping off.

1080-GC451 has a protective liner on the non-adhesive side of the film. This must be removed before use of film.

Printing

This film may be printed with latex inkjet inks. It is the graphic manufacturer's responsibility to determine the suitability for use with their printers and inks. To maximize the durability of the printed film, use graphic protection such as 3M™ Scotchcal™ Gloss Overlamine 8518.

1080-GC451 has a protective liner on the non-adhesive side of the film. This must be removed before printing.

If printing is applied to the film, with or without wrap protection, the wrap shop assumes all risk for testing, approving and suitability.

Application

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

Refer to [Instruction Bulletin 5.1 'select and prepare substrates for graphic application'](#), for general application information.

Important Notice Controltac™ Films

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. Please refer to the product's instruction bulletin for detailed information.

Refer to [Instruction Bulletin 1080 '3M™ Wrap Film Series 1080'](#) for detailed application information.

3M™ Primer 94

Within the recess area and along the edges of the film where it has been stretched and cut the usage of Primer 94 will increase the adhesion of the graphic. It is considered an extra level of insurance to avoid film lifting.

If you use 3M™ Primer 94 apply it to the deepest part of any channel and both sides of any silicone bead. Apply film within 5 minutes to 60 minutes after Primer 94 application.

Important Notice

- Post-heating of edges is required (+40°C to +60°C).
- Stretching of film at the edges should be avoided in order to avoid shrinkage and color fading.
- Excessive heat and stretch of 1080-GC451 might result in change of gloss. The surface temperature must not exceed +70°C.
- Inlays and relief cuts in deep recesses are recommended.
- Surfaces with high surface tension as e.g. car glass should be covered by masking or application tape in order to prevent adhesive residuals when removing the film from the substrate. Removal with slow speed and peel angle < 90° is preferred.

Color appearance

Due to mirror finish of this film, small particles and imperfections are more easily seen than in standard films. These particles are not considered defects.

To avoid color variations all pieces of applied film of one colored area should be processed out of the same roll of material. If more than one roll is needed for the application, material should be taken from the same lot.

Check material on color consistency before application.

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.

If available in fully automated car washes, polishing rollers should be disabled to avoid high pressure contact and potential damage of the film. The use of wax is not recommended.

Matte colors might become glossy if brushed and waxed in car washes.

Important Safety Remark

Application to glass

The application of colored or printed film onto glass with sunlight exposure 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.

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Responsible for this technical bulletin

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