

3M[™] Wrap Film Series 1380

Product Bulletin

Product Description

Wrap Film Series 1380 is a long-term, cast film designed for solid colour vehicle detailing, decoration and full wraps without the need of additional graphic protection. Series 1380 offers excellent conformability for applications on recesses and deep channels. These vinyl films are sold in 1.52m wide rolls, allowing almost any section of a vehicle to be wrapped without seams.

Series 1380 uses 3M[™] Controltac[™] and 3M[™] Comply[™] technology.

Controltac adhesive minimises 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.

Product Line See colour card: 3M™ Wrap Film Series 1380 Colour Card

> Car Wrapping 1380G Gloss, permanent adhesive with Comply air release

> > channels

Satin, permanent adhesive with Comply air release 1380S

channels

1380M Matte, permanent adhesive with Comply air release

channels

Product Characteristics Physical & Application

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

Material cast vinyl

Surface finish gloss, satin and matte

Thickness (film) 90 µm (0.09 mm)

Adhesive type solvent acrylic, pressure-sensitive, repositionable

Adhesive

appearance clear (on white film layer)

Liner double-sided Polyethylene coated paper Adhesion approx. 18 N/25 mm approx. 18 N/25 mm

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

-60°C to +107°C

Application temperature

minimum (air and

substrate) Service

+16°C For flat, curved and deep channel surfaces

temperature

(in-use temperature

range after application) Surface type flat to curved, including rivets, corrugations and deep channels

Substrate type aluminium, glass, PMMA, PC*, ABS, paint

(*May require drying with heat before use)

Graphic removal Removable with heat and/or chemicals from most substrates

within the warranty period at 10°C (50°F) minimum (air and

substrate)

• Use a removal angle of <90° for optimal results

No liability is given for ease or speed of removal of any graphic.

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

Storage

Shelf life

The shelf life for unprocessed film is 2 years* from the date of manufacture (i.e. the date marked on the original packaging). Process within 1 year of manufacture and apply within 1 year of processing.

*The shelf life defined is an indicative and maximum data, subject to many external and non-controllable factors.

Storage conditions! Store in the original container at temperatures of +4°C to

+40°C, out of sunlight, in a clean and dry area. Bring the film to

room temperature before use.

Flammability

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

Durability

The performance in the table below is the result of illustrative lab tests. The values show the best performance expected from these products, provided that the film is processed and applied professionally according to 3M's Recommendations. The statements do not constitute warranties of quality, life and characteristics. The performance of the product is also influenced by:

- the type of substrate and thorough preparation of the surface (with 3M[™] Surface Preparation System)
- application procedures
- · environmental factors
- the method and the frequency of cleaning

Climatic zones Graphic durability is largely determined by the climate and the

angle of exposure. The table below shows durability for these

products 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.

Interior: Interior means an application inside a building

without direct exposure to elements.

Vertical outdoor	Zone 1	Zone 2	Zone 3
exposure			
white/black	6 years	4 years	3 years
colours	5 years	3 years	2.5 years
metallics	5 years	3 years	2.5 years
Non-vertical			
outdoor	Zone 1	Zone 2	Zone 3
exposure			
white/black	4 years	2.5 years	2 years
colours	3 years	1.5 years	12 months
metallics	3 years	1.5 years	12 months
Horizontal outdoor	Zone 1	Zone 2	Zone 3
exposure	Zone i	Zone Z	Zone 3
white/black	3 years	2 years	12 months
colours	2 years	12 months	6 months
metallics	2 years	12 months	6 months
Interior application	Zone 1	Zone 2	Zone 3
All Finishes	10 years	10 years	10 years

3M[™] MCS[™] Warranty/3M[™] Performance Guarantee In addition, 3M provides a warranty on a finished graphic within the framework of 3M™ MCS™ warranty programmes.

For detailed graphic construction and application recommendations, along with specific Warranty periods, please see the Warranty matrices and Warranty information on <u>3M</u>
<u>Graphic Solutions/Warranties.</u>

Visit www.3M.co.uk/graphicsolutions for further information about 3M's comprehensive range of graphic solutions.

Limitations of End Uses

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

- low surface energy substrates or substrates with a low surface energy coating.
- stainless steel.
- surfaces not clean and/or with more than a moderate texture.
- 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 original OEM paint applied.
- Graphics Subjected to
- regular exposure to petroleum vapours or spills at petrol pumps, automobile fueltank 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.

Graphics Manufacturing

Shipping finished graphics

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

Application

See instruction bulletin 4.3 <u>3M™ Application Tapes Premasking and Prespacing for Films</u> for information about selection and use of suitable application tapes for this product, please.

Refer to Instruction Bulletin 5.1 and 5.4 <u>Substrate Selection, Preparation and Substrate Specific Application Techniques</u> for substrate preparation and application techniques and instruction Bulletins: 5.4 Special Applications and Vehicles and 5.47 3M[™] Wrap Film Series 1380 Application on Substrates with Recesses for application techniques.

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 the cut edge to the non-visible side. Post-heating of overlaps in recesses and deep channels is required at least at 120°C.

Film Series 1380 requires 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. microfiber) is recommended. Wetting of sleeves helps to avoid scratches on film surface during application.

Excessive heat and stretch might result in change of gloss and colours.

Important Notice

The colour of the substrate may alter the appearance of the lighter coloured films; the finished effect must be evaluated on a case-by-case basis.

Colour Appearance

Film colours can vary slightly from lot to lot. For the most consistent looking wraps, use film from the same roll, or manufacturing lot number, for an entire vehicle.

It is recommended that metallic colours are applied in the same direction on adjacent panels. The orientation of metallic films significantly affects the colour/appearance of the film.

Removal

A surface temperatures between 50°C and 60°C is recommended for removal. The use of an infrared heater (2000 W, e.g., TERM 2000 CVH from company Burda Worldwide Technologies GmbH) will speed up the heating process for large areas.

Refer to Instruction Bulletin 5.47 3M™ Wrap Film Series 1380 Application on Substrates with Recesses, for detailed application information.

Maintenance & 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 <u>Storage</u>, <u>Handling</u>, <u>Maintenance and Removal of 3M</u> <u>Films</u> for general maintenance and cleaning information.

Do not apply waxes, polishes, paint or clear coats over these films. If there is wax and/or wax residue on the film, remove with an all-purpose cleaner.

Health & Safety

Refer to the package label and the Material Safety Data Sheet for health, safety, and handling information on the products referenced in this bulletin. For 3M products, if necessary, you may contact our Toxicology/Product Responsibility Department on 01344 858000.

Important Notice to Purchaser

The 3M products described in this publication are covered by a 3M warranty and limitation of liability.

3M's warranty provides that if 3M finds that goods are defective in material or workmanship they will be replaced or the price refunded at 3M's option but note that 3M does not accept liability for other direct losses (except for personal injury or death) or consequential losses relating to defective products or from information supplied by 3M.

Purchasers and users of 3M products, and not 3M supplying companies, are always solely responsible for deciding on the suitability of the 3M product for their required or intended use.

Additional Information

Visit the web site of your local subsidiary: www.3M.co.uk/graphicsolutions

- details about 3M™ MCS™ Warranty and 3M Performance Guarantee
- additional instruction bulletins
- An overview of the 3M Commercial Graphics range of graphic films

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