

## Product Description

- 3M™ Controltac™ Graphic Film Series 180 with Comply™ Adhesive offer great versatility for indoor and outdoor signs and fleet graphics.
- These films utilize 3M™ Controltac™ and 3M™ Comply™ technology . Controltac™ minimizes the initial contact area of the adhesive for easy sliding, tacking, snap-up and repositioning . Comply™ technology allows air to exit through air release channels to the edge of the graphic .
- Expected Performance Life (unwarranted period for unprinted film with no graphic protection, applied to a flat, vertical, non -vertical outdoor surface under Northern European climate conditions):







White/Black	10 years
Colors	8 years
Metallic	6 years

Note: This document uses hyperlinks. Please follow the links for additional information.

## Recommended types of graphic and use

- Indoor and outdoor graphics and signs
- Wraps for vehicles, straight trucks, semi -trucks and semi-trailers
- Bus graphics
- Rail car graphics (excluding stainless steel)
- Watercraft graphics (above the static water line only)
- Point-of-purchase graphics and displays, emblems or striping
- Small format original equipment manufacturer’s (OEM) decorative and identification graphics, cautionary and safety labeling

## Surface types

flat	rivets	simple curves	compound curves	corrugations	deep channels and recesses
✓	✓	✓	✓	✓	
					

Note: Expect tenting with applications onto rivets.

## Product line

Product name	Description	Features
3M™ Controltac™ Graphic Film Series 180-X	X = color code, opaque. Various colors.	Controltac™
3M™ Controltac™ Graphic Film with Comply™ adhesive Series 180C-X	X = color code, opaque. Various colors.	Controltac™ and Comply™
3M™ Controltac™ Graphic Film with Comply™ Adhesive v2 Series 180Cv2-X	X = color code, opaque. Various colors.	Controltac™ and Comply™

3M™ Controltac™ Graphic Film with Comply™ Adhesive Series 180mC-X X = color code, opaque. Wide selection of colors. Special colors available on request. Controltac™ and Comply™

[Follow the link for more 3M™ 180 Films](#)

## Recommended Compatible Products

[Follow the link for further information about selection and use of compatible protective overlaminates and printable clears.](#)

[See instruction bulletin ‘AT-1’ for information about selection and use of suitable application tapes for this product, please.](#)

[Follow the link for a complete list of compatible products that are approved by 3M for use with the base film covered in this Bulletin and used for the creation of a graphic that may be eligible for the 3M™ MCS™ Warranty or 3M Performance Guarantee.](#)

## Physical Properties

The values displayed are the results of illustrative lab test measures made according to the indicated external norm and shall not be considered as a commitment from 3M.

Value	Characteristic	
Material	Cast vinyl	
Thickness	Film without adhesive:	0,05 0 ± 0,005 mm 0,065 ± 0,005 mm ( products with X/5 color code)
ISO 534	Film with adhesive:	0,08 - 0,10 ± 0,01 mm 0,095 – 0115 ± 0,010 mm (products with X/5 color code )
Adhesive	Acrylic pressure -sensitive, repositionable	
Adhesive appearance	Grey or clear, dependent on film color	
Adhesion		
Indicative values	Aluminum etched	20 ± 4 N/25 mm
FTM 1, 24 h 23°C/50%RH	Paint	17,5 ± 4 N/25 mm
Applied shrinkage FTM 14	0,24 mm	
Liner	Polyethylene -coated paper	
Application method	Dry only	
Substrate types	Aluminum, chrome, glass, PMMA, PC*, resins, ABS, paint**	
	The application of film onto glass can cause glass break by uneven heat absorption through sun exposure. 3M does not accept liability for glass breakage.	
	* Might require drying with heat before use	
	** Check adhesion to powder -coated or water -based paints	
Application temperature	10 – 38 °C	Flat
	13 – 38 °C	Simple curves, corrugations and rivets
	16 – 32 °C	Compound curves and watercrafts

3M recommends application at +18°C to +22°C for optimum ease of application.

Temperature range after application	-60 to +107 °C  (not for extended periods of time at the extremes)
Chemical Resistance	<ul style="list-style-type: none"><li>• Resists mild alkalis, mild acids, and salt</li><li>• Excellent resistance to water (does not include immersion)</li><li>• Resists occasional fuel spills</li></ul>
Flammability	Flammability standards are different from country to country. Ask your local 3M contact for details, please.

## Warranty Information

### 3M Basic Product Warranty

3M Graphics Products are warranted to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in its applicable 3M Graphics Product Bulletin and as further set forth in the 3M Graphics Warranties Bulletin.

### 3M™ Performance Guarantee and MCS™ Warranty

3M provides a guarantee/warranty on a finished applied graphic with in the framework of 3M™ Performance Guarantee and/or 3M™ MCS™ warranty programs.

[Follow the link for a complete list of compatible products that are approved by 3M for use with the base film covered in this Bulletin and used for the creation of a graphic that may be eligible for the 3M™ MCS™ Warranty or 3M Performance Guarantee.](#)

## Limited Remedy

### Unsuitable End Uses

3M recommended product end uses are listed in each 3M graphics product bulletin. End uses not listed in the applicable 3M Graphics Product Bulletins are typically not eligible for 3M Graphics Warranties. For non-recommended and/or non-warranted end uses or applications, users must test and approve the end uses or applications, assume any associated risks, and acknowledge that 3M has no liability for such end uses or applications. Please contact your 3M representative with any questions about graphic applications, end uses, and warranties.

### Limitations of liability

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. 3M Commercial Solutions products are not tested against automotive manufacturer specifications!

## Graphic Manufacturing

### Sheeting, Scoring and Film Cutting

[See 3M Instruction Bulletin 4.1 for Sheeting, Scoring and Film Cutting details.](#)

## Application and Installation

In addition to other 3M Bulletins specified in this document, the following Bulletins provide details that you may need to successfully apply a graphic.

[See 3M Instruction Bulletin 5.42 for application and special considerations for watercrafts.](#)

[See 3M Instruction Bulletin 5.5 for general procedures for interior and exterior dry application.](#)

## Maintenance, Cleaning and Removal

Use a cleaner designed for high-quality painted surfaces. The cleaner must be wet, non-abrasive, without solvents, and have a pH value between 3 and 11 (neither strongly acidic nor strongly alkaline).

These films can be removed with the aid of heat and/or chemicals.

See 3M Instruction Bulletin 6.5 for information about storage, handling, maintenance and removal of films and sheetings.

## Shelf Life, Storage and Shipping

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

The shelf life is never more than 3 years from the date of manufacture on the original box. If you process the film, the shelf life is changed to 1 year from the processing date, but not later than the 3-year maximum from the manufacturing date.

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

Shipping finished graphics: Flat or rolled printed side out on 6 inch (15 cm) or larger core.

## Health and Safety

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

[Follow the link to obtain SDS sheets for 3M products on 3M.com/SDS.](#)

[Follow the link to obtain information about substances of very high concern \(SVHC\).](#)

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

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