## **Product Description**

- · Cast adhesive backed film for Solvent, UV, Latex Inkjet printing
- This film utilizes 3M<sup>™</sup> Controltac<sup>™</sup> and 3M<sup>™</sup> Comply<sup>™</sup> technology
   Controltac<sup>™</sup> 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 10 years

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

## Recommended types of graphic and use

- Wraps for vehicles, straight trucks, semi-trucks and semi-trailers; emblems or striping
- Non-vertical and horizontal vehicle wraps (when protected with specified 3M<sup>™</sup> overlaminates)
- Bus and transit graphics

## Surface types

flat	rivets	simple curves	compound curves	corrugations	deep channels and recesses
✓	✓	$\checkmark$	✓	✓	✓

## **Product Line**

Product name	Description	Features
3M™ Print Wrap Film IJ280	white, opaque film with a glossy finish	Controltac™ and Comply™

# **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.



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.

Characteristic	Value						
Material	Cast vinyl	Cast vinyl					
Thickness	Film without adhesive:	0.05 ± 0.005 mm					
ISO 534	Film with adhesive:	0.08 - 0.10 ± 0.01 mm					
Adhesive Adhesive appearance	Acrylic pressure-sensitive, repositionable Grey						
Adhesion	ABS 13.5 – 17.5 ± 2 N/25 mm						
Indicative values	Aluminum etched	17.5 – 23 ± 2 N/25 mm					
FTM 1, 24 h 23°C/50%RH	Paint	8.5 – 13.5 ± 2 N/25 mm					
Applied shrinkage FTM 14		0.4 mm					
Liner	Polyethylene-coated paper						
Application method	Dry only	Dry only					
Substrate types Aluminum, glass, PMMA, PC*, ABS, paint**							
	The application of film onto glass can cause glass break by uneven heat abso sun exposure. 3M does not accept liability for glass breakage.						
	* Polycarbonate substrates may require oven drying before use due to outgassing of moisture from the polycarbonate causing the film to bubble. Refer to the manufacturers' instructions.  ** Check adhesion to powder-coated or water-based paints						
Application temperature	4 – 38 °C	Flat					
	10 – 38 °C	Simple curves, corrugations and rivets					
	16 – 32 °C	Compound curves and recesses					
3M recommends application at +18	3°C to +22°C for optimum ease of	application.					
Temperature range after application	-53 °C to +107 °C						
	(not for extended periods of time at the extremes)						
Chemical Resistance	<ul> <li>Resists mild alkalis, mild acids, and salt</li> </ul>						
	<ul> <li>Excellent resistance to water (does not include immersion)</li> </ul>						
	Resists occasional fuel spills						
Flammability	Flammability standards are different from country to country. Ask your local 3M contact for details, please.						
	Follow the link to check for available fire certificates.						



## **Adhesive Characteristics**

3M™ Print Wrap Film IJ280			2	3	4	5	
Installation Characteristics	Challenging/High Skill						Easy/Low Skill
24-hour adhesion	Low						High
Long term adhesion	Low						High
Removability	Not Designed for Easy Removal						Designed for Easy Removal

# **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 within the framework of 3M<sup>™</sup> Performance Guarantee and/or 3M<sup>™</sup> MCS<sup>™</sup> 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<sup>TM</sup> MCS<sup>TM</sup> 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**

## Ink jet printing

A too high total physical ink amount on the film results in media characteristic changes, inadequate drying, overlaminate lifting, and/or poor graphic performance. The maximum recommended total ink coverage for this film is:

- 270% when printed with all approved 3M solvent inkjet inks
- 280% when printed with all approved 3M UV inkjet inks
- 280% when printed with all approved 3M latex inkjet inks

See the individual ink bulletins for details, please.

IMPORTANT NOTE: Incomplete drying or curing can result in graphic failure including curling, increased shrinkage and adhesion failure, which are not covered under any 3M Graphic Warranty.



#### 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.

Special Instructions for HP Latex 831/891.

See 3M Instruction Bulletin 4.22 for roll lamination

See 3M Instruction Bulletin 5.4 for application fleet trucks

See 3M Instruction Bulletin 5.36 for application techniques for automobiles vans and buses

See 3M Instruction Bulletin 5.46 for application on substrates with recesses.

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 from substrate types mentioned within the warranty period.

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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