



3M™ Controltac™ Graphic Film IJ380

For solvent based piezo ink jet and screen printing

Product Description

3M™ Controltac™ Graphic Film IJ380 is an extremely flexible film, specially designed for the application of large format graphics onto substrates with recesses and 3D corrugations.

Graphic Film IJ380 is suitable for solvent PIJ printing and for screen printing with solvent based inks.

Key Features

- High conformability for applications into recesses and deep channels
- Excellent image performance with solvent, eco-solvent and low solvent piezo ink jet printers
- Screen printable with solvent based ink
- Controltac™ adhesive for easy temporary positioning during application
- Excellent hiding power (opacity)

Limitations of End Uses

Specifically, we do not warrant this film for the following:

- Graphics applied to:
 - Stainless steel.
 - Non-3M films (see under Removal)
 - Substrates that do not have a clean, smooth surface.
- Graphic removal from:
 - Applications with poor paint-to-substrate adhesion.
 - Existing graphics that must remain intact. Damage may occur during removal of Film IJ 380.

- Graphic subjected to:
Gasoline vapours or spills at fuel pumps, automobile fuel-tank ports, or top-feeding petroleum tankers.
- Graphics made for automotive Original Equipment Manufacturers (OEM), please contact 3M Automotive Division.

Product Line

IJ380-10 White, semi-gloss
 with Controltac positionable adhesive

Compatible Products

- 3M™ Piezo Solvent Ink Jet Inks
- 3M™ Screen Printing Ink Series 1900 (line colour and 4-colour)
- 3M™ Scotchcal™ Overlamine 8580
- 3M™ Screen Print Gloss Clear 1920
- Selected 3M application tapes

Characteristics

This information is subject to change. These values are typical for unprinted film and are not intended for use in specifications. Be sure this is the most current Product Bulletin. See **3M Related Literature** at the end of this bulletin.

Property	Description
Film	50µm (0.05 mm) White opaque cast vinyl
Basis weight (film and adhesive)	110 g/m ²
Adhesive type	Solvent Acrylic Repositionable, pigmented, pressure activated, permanent
Primer Colour	Grey
Liner	Polyethylene coated paper, 150 g/m ²
Application surface	Flat, compound curves, recesses, rivets and corrugations
Application substrates	Paint, aluminium Other substrates as chrome, glass, and fiberglass reinforced plastics are currently proved for flat applications only.
Application temperature (air and substrate)	15°C – 25°C At higher temperatures the use of application tape is recommended.
Cleaning Important Notice	Isopropyl Alcohol is not a recommended cleaning product for vehicle wrapping: because it evaporates too quickly, IPA (Isopropyl Alcohol) is not an appropriate cleaner. 3M™ Surface preparation system is the only 3M recommended cleaning product.
Post Heating temperature where required	Min of 80°C See Instruction Bulletin 5.4 Special Applications and Vehicles for why and how to post-heat
Removal	Removal with heat and/or chemicals from most substrates
Service temperature range	-60°C to +107°C
Applied shrinkage	<0.1mm FTM 14
Adhesion (after 24 hours)	20N/25mm FTM1: 180° peel after 24 hours at 23°C, 50%RH
Shelf life	2 years from date of purchase Out of sun light, clean and dry conditions between +4°C and +40°C

3M™ MCS™ Warranty

Only a Scotchprint® Graphics Authorised Manufacturer or 3M™ MCS™ Qualified Manufacturer can produce 3M™ MCS™ Warranted Graphics. The actual performance depends on the:

- Correct combination of film and ink
- Ink formulation
- Drying methods
- Selection and preparation of the substrate
- Application methods
- Exposure conditions
- Cleaning methods

Important notice: Isopropyl Alcohol is not a recommended cleaning product for vehicle wrapping: because it evaporates quickly, IPA (Isopropyl Alcohol) is not an appropriate cleaner. 3M Surface preparation system is the only 3M recommended cleaning product.

Film	Inks	Protective Clear	Application	
			Vertical + 10%	Horizontal
IJ380	1900	8580 O/L 1920 clear	5 years*	3 years*
IJ380	3M Piezo Ink Jet	8580 O/L 1920 clear	5 years*	3 years*

*Zone 1: Northern and Central Europe

Austria, Baltic States, Belgium, Bosnia, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greenland, Hungary, Iceland, Ireland, Italy (North of Rome), Liechtenstein, Luxembourg, Netherlands, Norway, Poland, Romania, Serbia, Slovakia, Slovenia, Sweden, Switzerland, UK

3M Performance Warranty

For non-MCS manufactured graphics, series 3M™ Controltac™ Graphic Film IJ380 has a 10 year durability. This durability applies to the unprinted film. Refer to ink manufacturer for specific ink durabilities.

When to Use an Overprint Clear or Overlaminates

An overprint clear or overlaminates provides protection to a graphic as well as providing a uniform gloss level. Typically, only graphics that are subjected to harsh conditions require this protection in order to be warranted. They include:

- Vehicle and fleet graphics; such graphics are subjected to abrasion such as road debris and automatic/power washing.
- Any graphic exposed to abrasive washing conditions, including automatic/power washing, harsh cleaners or chemicals.

Please Note: Unprocessed, i.e. non-printed film does not require an overlaminates or clear coat.

Application Tapes

	Prespace Tape	Premask Tape
Unprinted	SCPS-100	SCPS-19

Printed, with overlamine	SCPS-100	SCPS-19
Ink Series 1900	SCPS-100	SCPS-19

See Instruction Bulletin 4.3 for details.

Removal

3M™ Controltac™ Graphic Film IJ380 can be removed with heat and/or with chemicals (within warranted period of time). Removing film IJ380 from pre-existing graphics will damage that graphic. No liability is given for ease or speed of removal of any graphic.

Related 3M Literature

Listed below is related 3M Technical Literature which may be of interest:

Subject	Product Bulletin	Instruction Bulletin
Design of Markings		2.1
3M™ Screen Printing Ink Series 1900	1900	3.11, 3.12
3M™ Piezo Ink Jet Ink Series 1500	1500	4.35
3M™ Piezo Ink Jet Ink Series 4600	4600	4.30
3M™ Piezo Ink Jet Ink Series 600	600	600
3M™ Piezo Ink Jet Ink Series 6800	6800	4.40
Scoring and Cutting		4.1
Premasking and Prespacing		4.3
Cold roll lamination		4.22
Surface Preparation		5.41
Application		5.41
Storage, Maintenance and Removal		6.5

Glossary of Terms

Matched Component System™ or MCS™

The system pursuant to which Finished Graphics are produced by a Graphic Manufacturer using only 3M Products and components and manufactured in accordance with 3M's Product or Instruction Bulletins, 3M Specification Document and using 3M Approved Technologies.

3M™ Controltac™ Adhesive

A film with 3M™ Controltac™ positionable adhesive system has precision-placed microscopic glass spheres embedded within its adhesive layer. These spheres help to prevent the adhesive from fully contacting the application surface until pressure is applied. This enables the graphic to be positioned, then re-positioned as many times as necessary, until it is in exactly the right place before final application.

Permanent Adhesive

Films with a permanent adhesive can be removed but will often require heat and/or chemicals for effective removal.

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.

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