

3M™ Scotchcal™ Graphic Film with Comply™ Performance Series IJ40C

for solvent based piezo ink jet and electrostatic printing

Product Description

The 3M™ Scotchcal™ Graphic Film with Comply™ Performance Series IJ40C are opaque, stabilised, calendared vinyl films, offering a wide range of fleet, signage and interior decoration applications. The films are intended for application onto flat surfaces.

Advantages

- Comply™ performance feature for easier high quality installation
- Excellent image performance with solvent based piezo ink jet printers
- Excellent hiding power for opaque films
- For MCS™ warranted intermediate applications

Applications and End Uses

- Fleet Graphics
- Interior/Exterior Signs
- Interior/Exterior Display Graphics
- Window Graphics
- Back Illuminated Applications

Limitations of End Uses

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

- Graphics applied to:
 - Corrugated or highly-irregular surfaces or sharply raised areas such as huck bolts.
 - Substrates that do not have a clean, smooth surface or have poor paint-to-substrate adhesion
 - Stainless steel
 - Flexible Substrates
 - Compound contours
 - Exterior horizontal applications
- Graphic removal from:
 - Existing graphics that must remain intact
- Graphics subjected to petroleum vapours or spills

Product Line

IJ40C-10	white gloss, grey pigmented, pressure sensitive, permanent adhesive
IJ40C-10R	white gloss, grey pigmented, pressure sensitive, removable adhesive
IJ40C-20	white matte, grey pigmented, pressure sensitive, permanent adhesive
IJ40C- 20R	white matte, grey pigmented, pressure sensitive, removable adhesive

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.

Characteristic	Description
Film only	0.075mm, white vinyl (75 micron)
Thickness (film and adhesive)	0.11 to 0.13 mm
Adhesive type and colour: Pressure sensitive, grey	IJ40C-10, IJ40C-20: Permanent, solvent based acrylic
	IJ40C-10R, IJ40C-20R: removable, solvent based acrylic
Liner	150 g/m ² , polycoated paper
Application surface	Flat only
Application substrates	Glass, metal, paint, rigid plastic
Minimum application temperature (air and substrate)*	+4°C
Removal for : IJ40C-10R and IJ40C-20R	Removable within the warranted durability of the product
Service temperature range	-40°C to +90°C
Tensile strength (min)	22N/25mm @ 23°
Applied shrinkage	< 0.5 mm
Adhesion (FINAT TM-1, stainless steel, 200 mm/min)	IJ40C-10 and IJ40C-20: > 18N/25 mm
	IJ40C-10R; IJ40C-20R: > 9N/25 mm
Shelf Life	2 years after receipt from 3M in dry conditions, Temp. ≤ 38°C

**For applications nearing the minimum temperature range, please contact your local technical service representative to confirm suitability of application*

When to Use an Overprint Clear or Overlamine¹

An overprint clear or overlamine provides protection to a graphic as well as changing gloss. 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.

Warranted Durability

Description	Overlaminates/ Protective Clears ¹	Fleet			Exterior Sign 1 st Surface			Exterior Sign 2 nd Surface			Interior		
		1	2	3	1	2	3	1	2	3	1	2	3
IJ40C-10, IJ40C-20 Permanent Opaque	-	-	-	-	3	3	2	-	-	-	5	5	5
IJ40C-10R, IJ40C-20R Removable Opaque	40-114, 40-124, 1920, 9720	3	3	2	3	3	2	-	-	-	5	5	5

¹ See when to use an overprint clear or an overlamine

Zone 1: Northern and Central Europe

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

Zone 2: Mediterranean Europe

Albania, Bulgaria, Corsica, Crete, Greece, Italy (South of Rome), Macedonia, Malta, Portugal, Russia, Sardinia, Spain, Turkey

Zone 3: Middle East and Africa

Afghanistan, Bahrain, Cyprus, Dubai, Israel, Kuwait, Iran, Iraq, Jordan, Lebanon, Oman, Pakistan, Qatar, Saudi Arabia, Syria, UAE, Yemen, Algeria, Angola, Benin, Botswana, Burkina, Burundi, Cameroon, CAR, Chad, Congo, Djibouti, Egypt, Eritrea, Gabon, Ghana, Guinea, Ivory Coast, Libya, Liberia, Madagascar, Mali, Mauritania, Morocco, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somali Republic, South Africa, Sudan, Togo, Tunisia, Uganda, Zaire, Zambia, Zimbabwe

Printing

Refer to the relevant 3M Instruction Bulletin for printing information (see related literature).

Drying Caution

Always build enough time into your process to ensure adequate drying of the graphic. Poorly dried film may become soft and stretchy, and the adhesive may become too aggressive. This can cause difficulty when applying an overlamine, rolling the graphic, and applying the film.

Application Tapes

Overlamine or Overprint Clear	Prespace Tape	Premask Tape
Printed, uncleared	SCPS-100	SCPM-19
1920DR, 9720, IJ40-114, IJ40-124	SCPS-100	SCPM-19

Removal

Graphics Film IJ40C-10R and IJ40C-20R can be removed within the warranted period.

Graphics film IJ40C-10 and IJ40C-114 have a permanent adhesive

Effective Performance Life

When manufactured, applied and maintained in accordance with 3M recommended procedures, graphics produced on 3MTM ScotchcalTM Graphic Film with ComplyTM Performance Series IJ40C and protected with selected 3M Scotchcal Overlaminates a warranty founded on 3MTM MCSTM will be given by 3M. Performance statements are based upon representative experience obtained from testing throughout Europe. Actual performance will be determined by substrate selection and preparation, maintenance of the marking and exposure conditions.

Fabrication

This bulletin does not contain detailed printing, processing or application procedures for the subject products. The appropriate Instruction Bulletin(s) may be obtained by contacting your 3M sales representative or 3M Technical Service.

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).

Shelf Life

The shelf life of the film is 2 years and should be applied within 2 years of the receipt of film if unprocessed. Processed film should be applied within 1 year of processing and within 2 years of receipt of the film.

Related 3M Literature

3M Technical Literature which may be of interest:

Subject	Product Bulletin	Instruction Bulletin
Product Bulletins		
3M™ Scotchcal Graphic Film Series 40	40	
3M™ Piezo Ink Jet Ink Series 1500	1500	
3M™ Screen Printing Ink Series 1900	1900	
3M™ Piezo Ink Jet Series 4600	4600	
3M™ Piezo Ink Jet Ink Series 6800	6800	
Scotchprint® Exterior Toner Series 8700/8800 ES	8700/8800	
3M™ Scotchcal™ Lustre Overlaminates 8519 3M™ Scotchcal™ Matte Overlaminates 8520	8519/8520	
3M™ Screen Printing Ink Series UV 9720	9720	
Instruction Bulletins		
Piezo ink jet printing with ink series 6800		4.40
3M™ Piezo Ink Jet Series 4600		4.43
3M™ Piezo Ink Jet Ink Series 1500		4.45
Screen printing with 3M™ Screen Printing Ink Series 1900		3.12
Screen printing with 3M™ Screen Printing Ink Series 9700UV		3.13
Scotchprint® Exterior Toner Series 8700/8800 ES		4.12
Cold roll lamination		4.22
Scoring and cutting		4.1
Using 3M application tapes; Premasking and prespacing for films and sheetings		4.3
Application, substrate selection, preparation and substrate-specific application techniques		5.5
Storage, handling, maintenance, 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.

Permanent Adhesive

Films with a permanent adhesive can be difficult to remove and will often require heat and/or chemicals for effective removal.

Removable Adhesive

Films with removable adhesive can be lifted easily from most suitable substrates and may require the application of heat to add the process.

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.

Technical Assistance

For help on specific questions relating to 3M Commercial Graphics Division Products, contact your local Technical Service Representative.

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