



Scotchcal™ Graphic Film with Comply™v3 adhesive

IJ170Cv3-10

Product Bulletin

Product Description

This cast film offers great versatility making them perfect for indoor and outdoor signs, fleet graphics and watercrafts.

Comply™ are air release channels in the adhesive for fast and easy, bubble-free graphic installations.

Product Line Inkjet printing SC IJ170Cv3-10 white, opaque, glossy, permanent adhesive (grey) with Comply™v3.

Product Characteristics

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

Physical & Application

Material	cast vinyl	
Surface finish	glossy	
Thickness (film)	50 µm (0.05 mm)	
Adhesive type	solvent acrylic; pressure-sensitive	
Adhesive appearance	grey	
Liner	double-sided Polyethylene coated paper	
Adhesion	18 N/25 mm	FTM 1: 180° peel, substrate: glass; cond: 24 h 23°C/50%RH

Application method	dry only!	
Applied shrinkage	< 0.1 mm	FTM 14
Application temperature	+10°C	minimum (air and substrate)

Service temperature	-60°C to +107°C	
Surface type	flat to curved, incl. rivets and corrugations	
Substrate type	aluminum, glass, PMMA, PC*, ABS, paint PC*, PETG*: Might require drying with heat before use	

Graphic removal Fair to remove with heat and/or chemicals from supported substrates.
No liability is given for ease or speed of removal of any graphic. Pay attention to adequate air and substrate temperature.

Storage **Shelf life** 2 years from the date on the original box
Up to 2 years unprocessed, or
processed within 1 year and apply within 1 year of processing

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

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

Durability

Unprocessed film The following durability data are given for unprocessed film only!

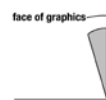
3M Performance Guarantee and MCS™ In addition, 3M provides a guarantee/warranty on a finished applied graphic within the framework of 3M Performance Guarantee and/or 3M MCS™ warranty programs.
Visit www.3mgraphics.com for getting more details about 3M's comprehensive graphic solutions.

Climatic zones Graphic durability is largely determined by the climate and the angle of exposure. Find below a table showing the durability of a product 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 $\pm 10^\circ$ from vertical.

Non - vertical:



The face of the graphic is greater than 10° from vertical and greater than 5° from horizontal. This includes non-vertical surfaces of vehicle wraps or fleet truck and trailer graphics.

Interior: Interior means an application inside a building without direct exposure to elements.

	Zone 1	Zone 2	Zone 3
Vertical outdoor exposure			
white	8 years	7 years	5 years
Non-vertical outdoor exposure			
white	4 years	3.5 years	2.5 years
Interior application			
interior	10 years	10 years	10 years

Limitations of End Uses

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

Graphics applied to

- flexible substrates incl. Panaflex™ and Panagraphics™.
- low surface energy substrates or substrates with low surface energy coating.
- other than flat or moderate curved/corrugated surfaces.
- painted or unpainted wallboards, gypsum boards and wallpapers.
- stainless steel.
- surfaces not clean and more than moderate textured.
- 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.

Graphic removal from

- signs or existing graphics that must remain intact.

Graphics subjected to

- gasoline vapors or spills.

Important Notice

- 3M Commercial Graphics Division products are not tested against automotive manufacturer specifications!

Graphics Manufacturing

When to use an overprint clear or overlaminate

Graphic protection can improve the appearance, performance and durability of your graphic. Any graphic exposed to abrasive conditions (including vehicles), harsh cleaners or chemicals must include graphic protection in order to be warranted.

See instruction bulletin GPO 'graphic protection options' for further information about selection and use of protective overlaminates and printable clears.

[> Product Bulletin Graphic Protection Options <](#)

Shipping finished graphics

Flat, or rolled film side out on 130 mm (5 inch) or larger core. These methods help to prevent the liner from wrinkling or application tape, if used, from popping off.

Converting Information Inkjet Printing

Adequately Dry Graphics

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%.

Inadequate drying can result in graphic failure including curling, increased shrinkage and adhesion failure, which are not covered under warranty. Build enough time into your process to ensure adequate drying of the graphic.

Poorly dried film becomes soft and stretchy, and the adhesive becomes too aggressive. 3M recommends at least a minimum drying time of 24 hrs before further processing. Dry the graphic unrolled or at least as a loose wound roll standing upright.

Application

See product bulletin ATR 'application tape recommendations' for information about selection and use of suitable application tapes for this product, please.

[> Product Bulletin Application Tape Recommendations <](#)

Refer to Instruction Bulletin 5.1 'select and prepare substrates for graphic application', for general application information.

[>Instruction Bulletin 5.1 'select and prepare substrates for graphic application'<](#)

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).

Refer to Instruction Bulletin 6.5 'storage, handling, maintenance and removal of films and sheetings', for general maintenance and cleaning information.

[>Instruction Bulletin 6.5 'Storage, Handling, Maintenance and Removal of Films and Sheetings'<](#)

Remarks

Important notice

This bulletin provides technical information only.

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.

Before using, the user must determine the suitability of the product for its required or intended use, and the user assumes all risk and liability whatsoever in connection therewith.

Additional Information

Visit the web site of your local subsidiary at www.3mgraphics.com for getting more:

- details about 3M™ MCS™ Warranty and 3M™ Performance Guarantee
- additional instruction bulletins
- a complete product overview about materials 3M is offering

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