



Scotchcal™ Graphic Film

3662-10

Product Bulletin

Product Description This cast, durable, opaque film is designed for making short term graphics that are applied to unsealed, outdoor, pedestrian traffic surfaces.

Product Line Screen printing 3662-10 white, opaque, glossy, removable adhesive.

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	approx. 22 N/25 mm	FTM 1: 180° peel, substrate: glass; cond: 24 h 23°C/50%RH
	Application method	dry only!	
	Applied shrinkage	< 3.0 mm	FTM 14
	Application temperature	+10°C	minimum (air and substrate)
	Service temperature	-10°C to +65°C	
	Surface type	flat	
	Substrate type	asphalt, concrete, pavement bricks	
	Graphic removal	Removable without 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	Use within 2 years from the date of manufacture on the sealed original box. Use within 1 year after opening the box.	
	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

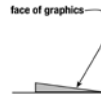
Unprocessed film

The following durability data are given for unprocessed film only!

3M™ MCS™ Warranty

In addition, 3M provides a warranty on a finished applied graphic within the framework of 3M™ MCS™ warranty program.

Horizontal:



The face of the graphic is $\pm 5^\circ$ from horizontal.

Horizontal outdoor exposure

white

Zone 1

3 months

Zone 2

3 months

Zone 3

3 months

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

- purposes other than graphics for floors/pavements.
- substrates other than recommended.
- areas with vehicle traffic except for light slow moving traffic.

Graphics subjected to

- gasoline vapors or spills.

Important Notice

- 3M Commercial Graphics Division products are not tested against automotive manufacturer specifications!
- Film has to be protected with the recommended protective overlamine to provide the needed skid resistance.

Graphics Manufacturing

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

When to use an overprint clear or overlamine

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

Graphic for Floors

To create a graphic for floors this film has to be protected with the recommended overlamine. No printable clear available!

[> 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 Screen Printing

Formulations and processing conditions can affect ink durability. Refer to the 3M Product and Instruction Bulletins for your ink for limitations and proper usage. Graphic protection can improve the appearance, performance and durability of your graphic.

A clear coat also prevents chalking on unprinted films. Use equipment designed to handle high viscosity materials and make sure the coating is evenly applied to the specifications given in the clear's Instruction Bulletin.

To create a graphic for floors this film has to be protected with the recommended overlamine. No printable clear available!

Application The use of an application tape is neither recommended nor needed.

The following Guide to Substrates will show you some substrates recommended or not recommended for the application of graphics for pavements.

> [Scotchprint® Graphics for Pavements - Guide to Substrates](#) - <

Avoid Lifting Cut radiuses on any sharp corners of the graphic after lamination. Do not apply finished graphic to the edge of tiles. Keep always a distance of a few centimeter to the joints (not edge of graphic to edge of tile).

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



Commercial Solutions Division

Hermeslaan 7

1831 Diegem, Belgium

Responsible for this technical bulletin

3M Deutschland GmbH | Safety & Graphics Laboratory

Carl-Schurz-Str. 1 | 41453 Neuss, Germany

3M, Controltac, Envision, Panagraphics, Panaflex, Scotchcal, Comply and MCS are trademarks of 3M Company. All other trademarks are the property of their respective owners.

The use of trademark signs and brand names in this bulletin is based upon US standards. These standards may vary from country to country outside the USA.