

Scotchcal™ Clear View Graphic Film

8150

Product Bulletin

Product Description

Scotchcal™ Clear View Graphic Film is a perfectly transparent cast PVC printing film. Any design can be perfectly reproduced using digital or screen printing, while unprinted areas allow a perfectly clear view through the glass. It is no longer necessary to cut out printed elements from the film – instead the printed area is an integral part of the film, which is bonded in its entirety.

The film can also be used inside buildings, enabling architects and shopfitters to implement creative design ideas combined with functional purposes.

Despite its hard-wearing qualities, it can be easily removed when no longer required.

Product Line	window decoration	SC8150	transparent, glossy, removable adhesive
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Product Characteristics

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

Physical & Application

Material	cast vinyl	
Surface finish	glossy	
Thickness (film)	50µm (0,05mm)	
Adhesive type	solvent acrylic; pressure-sensitive	
Adhesive appearance	clear	
Liner	transparent synthetic	
Adhesion	12 N/25mm	FTM 1: 180° peel, substrate: glass; cond: 24h 23°C/50%RH
Application method	wet only!	
Applied shrinkage	< 0,1 mm	FTM 14
Application temperature	+10°C minimum (air and substrate)	
Notice!	For making perfect - scratch free applications refer to Instruction Bulletin 8150, please	
Service temperature	-50°C to +90°C	
Surface type	flat to simple curved	
Substrate type	glass, PMMA, PC*	
	PC*: Polycarbonates might require drying with heat before use	
Graphic removal	Good to remove without or little heat No liability is given for ease or speed of removal of any graphic. Pay attention to adequate air and substrate temperature.	

Durability	Unprocessed film	The vertical outdoor durability of these films is 7 years. This statement is given for the most durable color within the film series. Other variants will have a lower durability. Since graphic durability is largely determined by the climate, the durability stated is based on average middle European exposure conditions. It might vary according to the geographical location of the application. For further information refer to the section additional information at the end of this bulletin.
	Shelf life	2 years from the date on the original box Up to 2 years unprocessed, or process 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.

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.

Graphic applied to	<ul style="list-style-type: none"> - applications other than window surfaces. - low surface energy substrates or substrates with low surface energy coating. - other than flat or simply curved surfaces
Graphic removal from	- substrates with coatings (i.e.: anti-reflection, anti-scratch); coatings may be damaged during film removal
Graphic subjected to Important Notice	<ul style="list-style-type: none"> - gasoline vapors or spills. - 3M Commercial Graphics Division products are not tested against automotive manufacturer specifications! - Non vertical applications will have a significant decrease in durability! - The user is responsible for determining and complying to laws and standards! - 3M accepts no liability for glass breakage when using this film for window graphics.

Graphics Manufacturing

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.

When to use an overprint clear or overlaminate	See instruction bulletin GPO 'graphic protection options' for further information about selection and use of protective overlaminates and printable clears.
Shipping finished graphics	Flat, or rolled film side out on 130mm (5inch) or larger core. These methods help to prevent the liner from wrinkling or application tape, if used, from popping off.

Converting Information Ink Jet Printing

A too high total physical ink amount on the film results in media characteristic changes, inadequate drying, overlamine lifting, and/or poor graphic performance. The maximum recommended total ink coverage for this film is 270%. Do not exceed the recommended total ink coverage for the ink series used on this film.

Adequately Dry Graphics

Inadequate drying can result in graphic failure including curling, increased shrinkage and adhesion failure, which are not covered under warranty. Always build enough time into your process to ensure adequate drying of the graphic. Poorly dried film become soft and stretchy, and the adhesive may become too aggressive. 3M recommends at least a minimum drying time of 24h before further processing of freshly printed graphics. Best is to dry graphic unrolled or at least as an loose wound roll standing upright.

Converting Information Screen Printing

Formulations and processing conditions can affect ink durability. Refer to the 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. Whether you apply screen print clears with traditional screening methods or roller coating, use equipment designed to handle high viscosity materials and make sure the coating is evenly applied to the specifications in the clear's Instruction Bulletin.

Abrasion and Loss of Gloss

Abrasion damage and loss of gloss are not covered by any 3M warranty. This is considered normal wear and tear.

Application

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

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.

Remarks

This bulletin provides technical information only.

Important notice

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.3m.eu/graphicsolutions 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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