



# Scotchcal™ Graphic Film

Series 5525C SE

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Series 5525 SE

## Product Bulletin

**Product Description** These polymeric translucent calendered films are perfect for medium term window and backlit applications.

Product variants with Comply™ adhesive also have air release channels for fast and easy, bubble-free graphic installations.

<b>Product Line</b>	Window decoration	5525 SE-324	sandblast finish, translucent, matte, permanent adhesive.
		5525C SE-324	sandblast finish, translucent, matte, permanent adhesive with Comply™.
		5525 SE-314	haze finish, translucent, matte, permanent adhesive.
		5525C SE-314	haze finish, translucent, matte, permanent adhesive with Comply™.

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

<b>Physical &amp; Application</b>	Material	calendered vinyl (polymeric)	
	Surface finish	matte	
	Thickness (film)	80 µm (0.08 mm)	
	Adhesive type	solvent acrylic, pressure-sensitive In addition: product variants with Comply™ adhesive have air release channels	
	Adhesive appearance	clear	
	Liner	Kraft paper	double-sided Polyethylene coated paper
	Adhesion	versions with Comply: approx. 12 N/25 mm	FTM 1: 180° peel, substrate: glass; cond: 24 h 23°C/50%RH
	Application method	wet or dry	dry only!
	Applied shrinkage	< 0.4 mm	FTM 14
	Application temperature	+10°C	for flat surfaces (minimum air and substrate)
	Service temperature	-40°C to +80°C	
	Surface type	flat	
	Substrate type	glass, PMMA, PC*, PETG*, ABS <small>*Might require drying with heat before use</small>	
	Graphic removal	Hard to remove from supported substrates.	
<b>Storage</b>	Shelf life	Use within two years from the date of manufacture on the sealed original box. Use within one year after opening the box.	
	Storage conditions	+4°C to +40°C, out of sunlight, original container in clean and dry area.	

**Flammability** DIN 4102 Part 1 - Fire Behavior of Building Materials and Building Components - Building Materials, Requirements and Tests. Achieved level: B1.

## Durability

Unprocessed film  
3M™ Performance  
Guarantee and MCST™  
Warranty

The following durability data are given for unprocessed film only!

In addition, 3M provides a guarantee/warranty on a finished applied graphic within the framework of 3M™ Performance Guarantee and/or 3M™ MCST™ warranty programs.

Visit [www.3mgraphics.com](http://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.

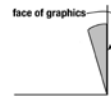
Zone 1 Northern Europe, Italy (north of Rome), Russia

Zone 2 Mediterranean area without North Africa, South Africa

Zone 3 Gulf area, Africa

Exposure types

Vertical:



The face of the graphic is  
±10° from vertical.

Interior:

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

**Vertical outdoor  
exposure**

**Zone 1**

**Zone 2**

**Zone 3**

transparent

4 years

3 years

2 years

**Interior application**

**Zone 1**

**Zone 2**

**Zone 3**

interior

5 years

5 years

5 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. 3M™ Panaflex™ Awning and Sign Facing 945GPS and 3M™ Panagraphics™ III Wide Width Flexible Substrate.
  - low surface energy substrates or substrates with low surface energy coating.
  - other than flat surfaces.
  - painted or unpainted wallboards, gypsum boards and wallpapers.
  - stainless steel.
  - substrates with tendency of outgassing.
  - surfaces that are not clean and smooth.

Graphic removal from - signs or existing graphics that must remain intact.

Graphics subjected to - gasoline vapors or spills.

- Important Notice
- 3M Commercial Solutions products are not tested against automotive manufacturer specifications!
  - Application between two sheets of glass is not recommended!
  - Versions with Comply™ are not suitable for electrocut graphics!

## Special Information

Spectral tau value. According to DIN 5033, part 3 and 7; Ultascan XE, light source diffuse/8°, observer 10°, D65

Typical values for unprocessed product. Not for use in custom specification!

<b>Translucency values</b>	SC5525 SE-314	87 % ± 2 %
	SC5525 SE-324	69 % ± 2 %
	SC5525C SE-314	81 % ± 2 %
	SC5525C SE-324	73 % ± 2 %

**Piezo Ink Jet** All variants of films series 5525 SE are piezo inkjet printable. The graphics manufacturer must test, approve and accept all responsibility for satisfactory use.

## Graphics Manufacturing

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.

Shipping finished graphics

## Converting Information

Based upon cutting evaluations the minimum height for text is 25 mm using upper and lowercase Helvetica Medium. The stroke width should not be lower than 1 mm.

## Electronic Cutting

The variable characteristics of electronically controlled cutting equipment require users to verify their specific requirements.

Sharpness of knife blade Dull blades impart a serrated look to the edge of the cut film.

Weight of knife blade The ideal weight slightly scores the liner. Too little weight does not cut completely through the film and the adhesive. Excessive weight cuts the liner and causes the blade to drag, accelerating wear and creating a serrated cut edge on the film.

Weeding The excess film should be weed (removed) as soon after cutting as practical. This is to minimize the effect of possible adhesive flow.

Temperature and relative humidity Temperature and relative humidity are minor considerations, but avoid extreme or rapid fluctuating conditions.

Roll storage Store the film in the same environment as the cutting equipment.

Further information For more details refer to our instruction bulletin 4.1 'Sheeting, Scoring, Film Cutting', please.

[>Instruction Bulletin 4.1'Sheeting, Scoring, Film cutting'<](#)

**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** 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.

**Safety** Risk of glass breakage due to thermal expansion.

When glass is exposed to direct sunlight, it absorbs heat. If covered by a coloured or non-transparent film, glass will absorb more heat.

Heat absorption can create thermal stress, resulting in glass breakage (also called thermal cracking), which can cause personal injury and property damage.

**Additional Information** Visit the web site of your local subsidiary at [www.3Mgraphics.com](http://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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