

Release D, Effective May 2013 (Replaces C, Feb 09) See Bulletin Change Summary at end of Bulletin

Scotchcal [™] Changeable Translucent Graphic Film 1J63-20

For Inkjet with Solvent, UV and Latex Inks and Screen Printing

- 1. Product Description
 - A. Product Features
- 3.2-mil matte white vinyl film
- · Pressure-sensitive adhesive
- Changeable
- B. Suggested Uses

The user is responsible for determining the product's suitability for the intended application. This product should be used on a test-and-approve basis.

- Short- to medium-term, indoor and outdoor promotional graphics
- Signs, trade show and point-of-purchase displays, windows and taxi tops
- C. Expected Performance Life

Expected Performance Life as a good faith estimate of how long the product may perform satisfactorily based on 3M testing. Note, there is no warranty associated with this estimate.

1 year in a vertical exposure with typical usage

note:

3M Product and Instruction Bulletins provide practical recommendations for using this product in a way that maximizes performance, but using other 3M products or procedures with this film does not change the terms of the warranty.

All values are typical for unprocessed film and are not for use in specifications. Contact your 3M representative for a custom specification.

2. Characteristics

A. Physical Characteristics

Characteristic	Value
Material	Calendered vinyl
Color	White translucent
Finish	Matte
Film thickness	Without adhesive: 3.2 mil (0.081 mm) With adhesive: 4.0 mil (0.102 mm)
Adhesive type	Pressure-sensitive
Adhesive color	Clear
Liner	Polycoated paper
Flammability	Call 1-800-328-3908 for information

B. Application Characteristics

Characteristic	Value
Finished graphic application recommendations	Surface type: Smooth, flat and simple curved surfaces
	Substrate type: Metal, rigid plastic, windows and fiberglass
	Application temperature: <i>air and substrate</i> 40° to 100°F (4° to 38°C)

Application Characteristics, continued...

Characteristic	Value
Application method	Wet or dry
Finished graphic exposure temperature	-59° to +192°F (-50° to +90°C)
Graphic removal	Changeable; may require heat when removing at cool or cold ambient temperatures

3. Definitions

A. Exposure Types

U.S. Vertical Exposure



face of graphic The face of the graphic is \pm 10° from vertical.

4. Warranty Information

A. Warranty Coverage Overview

This film is covered by the 3M Basic Product Warranty. It has been tested and is believed to be a good product when used as recommended in this Product Bulletin. However, there is no assurance or guarantee for the following:

- printability.
- visual appearance.
- fitness for use.
- · removability or changeability.
- damage to the substrate.
- · durability.

B. 3M Basic Product Warranty

The following is made in lieu of all other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose or implied warranty arising out of a course of dealing, custom or usage of trade.

This 3M Product is warranted to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in this Product Bulletin and as further set forth in the 3M Commercial Graphics Warranty Brochure.

C. Limited Remedy

3M will replace or refund the price of any 3M materials that do not meet this warranty within the specified time periods. These remedies are exclusive.

D. Additional Limitations

See the <u>3M Commercial Graphics Warranty Brochure</u> at 3Mgraphics.com, which gives the terms, additional limitations of the warranty, if any, and limitations of liability.

E. Application to Glass

3M accepts no liability for glass breakage when using this film for window graphics. See Instruction Bulletin 5.1 for details.

5. Limitation of Liability

Except where prohibited by law, 3M SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO PURCHASER OR USER FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LABOR, NON-3M MATERIAL CHARGES, LOSS OF PROFITS, REVENUE, BUSINESS, OPPORTUNITY, OR GOODWILL) RESULTING FROM OR IN ANY WAY RELATED TO SELLER'S PRODUCTS OR SERVICES. This limitation of liability applies regardless of the legal or equitable theory under which such losses or damages are sought including breach of contract, breach of warranty, negligence, strict liability, or any other legal or equitable theory.

6. Fabrication

A. All Printing Methods

This film has been optimized to perform well with a variety of inkjet printers and inks as well as screen printing inks and processes. It is the graphic manufacturer's responsibility to determine the film's suitability for use with their printers and inks.

To maximize the film performance:

- Use graphic protection. 3MTM ScotchcalTM Luster Overlaminate 8509 has been specially designed for use with 3M's promotional graphic films.
- Thoroughly dry the ink and film or properly cure the ink before applying graphic protection, and before storing or installing a graphic.
- B. Inkjet Printing Only
- Be aware that using sheeting film on a flat-bed inkjet printer may produce printing defects.
- The typical maximum ink limit is 250%.
- If you are storing sheeted and stacked finished graphics for an extended period of time, leave an unprinted margin (about 1/4 inch) to allow for possible shrinkage before trimming the graphic.
- C. Cutting Recommendations
- · Cold steel rule die
- Razor blade
- Sharp knife

7. Application

- A wet application method is recommended. The film may exhibit some hazing but this should disappear within 24 to 48 hours. See 3M Instruction Bulletin 5.7.
- A dry application method can be used if necessary.
- 8. Maintenance and Cleaning

Use a cleaner designed for high-quality glass 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).

9. Removal

- The graphics should remove without heat. However heat may be used to assist in removing the film. Use caution to avoid breaking the glass. Remove at your own risk.
- Substrates with coatings such as anti-reflection and scratch resistance may be damaged during removal.

10. Shelf Life, Storage and Shipping

Activity	Recommendations
Shelf life	Total shelf life: 2 years Up to 2 years unprocessed, OR Up to 1 year processed and applied within 1 year of processing
Storage conditions	 90°F (32°C) maximum Out of direct sunlight Clean, dry area Original container
Shipping finished graphics	Flat: may be separated by paper Roll: printed side out on 5 inch (13 cm) diameter or larger core

11. Health and Safety



When handling any chemical products, read the manufacturers' container labels and the Material Safety Data Sheets (MSDS) for important health, safety and environmental information. To obtain MSDS sheets for 3M products go to <u>3M.com/MSDS</u>, or by mail or in case of an emergency, call 1-800-364-3577 or 1-651-737-6501.

When using any equipment, always follow the manufacturers' instructions for safe operation.

12. 3M Related Literature

Before starting any job, be sure you have the most current Product and Instruction Bulletins.

The information in 3M Product and Instruction Bulletins is subject to change. <u>Current Bulletins</u> are available at 3Mgraphics.com. The techniques described in these Bulletins are required when applying a 3M warranted graphic, but are also practical recommendations when using promotional materials for non-warranted graphics. Additional Bulletins may be needed as indicated in the 3M Related Literature section of other 3M components you use.

Bulletin types: PB = Product Bulletin; PB-IB = Product & Instruction Bulletin; IB = Instruction Bulletin

Subject	Туре	Bulletin No.
3M Graphic Protection Products overview of all graphic protection products and specific information on most overlaminates		GP-1
Scoring and cutting		4.1
Using 3M application tapes; premasking and prespacing for films		4.3
Application, substrate selection, preparation and substrate-specific application techniques		5.1
Application, general procedures for indoor and outdoor dry applications		5.5
Application, wet method for translucent screen printed, thermal mass transfer and cut graphics		5.7
Storage, handling, maintenance, removal		6.5
3M Commercial Graphics Warranty Brochure go to www.3Mgraphics.com,/Warranties		

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13. Bulletin Change Summary

New and modified content is marked with a black bar in the margin. Added inkjet printing with latex inks as a possible printing platform. Updated warranty information.



Commercial Graphics

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