#### **Series 7725**

# **Product Description**

• 2-mil cast vinyl film

#### **Product Features**

- Pressure-sensitive non-removable adhesive
- Same color on both sides
- Transparent, synthetic liner resists moisture absorption and static buildup
- Lays flat for easier assembly of multi-color graphics
- Superior cutting and weeding, as small as 0.25 inch (0.64 cm)
- Ideal for prespaced and electronically cut or screen printed graphics, or graphics used in narrow width thermal transfer printing systems
- Expected Performance Life of 8 years (unwarranted period for unprinted film with no graphic protection, applied to a flat, vertical, outdoor surface)

## Recommended Types of Graphics and End Uses

See <u>3M.com/graphicswarranties</u> for a complete list of compatible products that are approved by 3M for use with the base film covered in this Bulletin and used for the creation of a graphic that may be eligible for the 3M™ MCS™ Warranty.

- Prespaced and electronically cut graphics
- Commercial and industrial graphic applications, including emblems, vehicle graphics, labels, striping, general signage, and two-way window markings
- Thermal transfer printed graphics

## **Recommended Compatible Products**

See <u>3M.com/graphicswarranties</u> for a complete list of compatible products that are approved by 3M for use with the base film covered in this Bulletin and used for the creation of a graphic that may be eligible for the 3M™ MCS™ Warranty or 3M Performance Guarantee.

#### Screen Printing Inks for 3M™ MCS™ Warranty

- 3M™ Screen Printing Ink Series 1900 (Solvent), line color and four color
- <u>3M™ Screen Printing UV Ink Series 9800</u>, line color and four color

### **Graphic Protection**

- 3M<sup>™</sup> Scotchcal<sup>™</sup> Gloss Overlaminate 8518
- <u>3M™ Scotchcal™ Luster Overlaminate 8519</u>
- 3M™ Scotchcal™ Matte Overlaminate 8520
- 3M<sup>™</sup> Scotchcal<sup>™</sup> Gloss Overlaminate 8528
- 3M<sup>™</sup> Envision<sup>™</sup> Gloss Wrap Overlaminate 8548G
- 3M™ Envision™ Luster Wrap Overlaminate 8549L
- 3M™ Envision™ Matte Wrap Overlaminate 8550M
- 3M™ Anti-Graffiti Gloss Overlaminate 8588G
- 3M™ Anti-Graffiti Matte Overlaminate 8590M
- 3M<sup>™</sup> Scotchgard<sup>™</sup> Graphic and Surface Protection Film 8991
- 3M<sup>™</sup> Scotchgard<sup>™</sup> Graphic and Surface Protection Film 8993
- 3M™ Screen Print Gloss Clear 1920DR
- 3M™ Screen Print UV Gloss Clear 9800CL
- 3M™ Screen Print Matte Clear 9730i
- <u>3M™ Screen Print UV Gloss Clear 9740i</u>



3M Graphics Warranties
Technical Information Selector
Safety Data Sheets (SDS)
Flammability
Videos

Some of these links lead to web-based resources that are not product-specific.



# 3M™ Scotchcal™ ElectroCut™ Graphic Film

## **Application Tapes**

See 3M Instruction Bulletin AT-1 to determine what application tape is recommended for the film or finished graphic.

#### Other Products

- <u>3M™ Edge Sealer 39</u>50
- 3M™ Edge Sealer Tape 8914

### Certificate of 3M<sup>™</sup> MCS<sup>™</sup> Warranty

Graphic manufacturers who produce digitally printed graphics made with all 3M Graphics Products, including 3M Ink purchased through a qualified 3M Distributor or 3M Printing Partner, may register to be recognized with a Certificate of 3M™ MCS™ Warranty. Only graphic manufacturers having a current Certificate of 3M™ MCS™ Warranty are eligible to extend this warranty to their customers.

**NOTE:** For non-digitally printed Finished Graphics, check your eligibility for the 3M<sup>™</sup> MCS<sup>™</sup> Warranty by viewing the Warranty Period found within the Product Bulletin or using the warranty selector at <a href="https://www.3m.com/graphicswarranties">www.3m.com/graphicswarranties</a>.

## Characteristics

These are typical values for unprocessed product. Processing may change the values.

## **Physical Characteristics**

Characteristic	Value		
Material	Vinyl		
Film Color	Opaque, see Colors		
Thickness	Without adhesive: 2 mil (0.05 mm) With adhesive: 2.5 – 3.5 mils (0.063 – 0.09 mm)		
Adhesive	Pressure sensitive		
Adhesive Color	Clear		
Liner	Transparent, synthetic		
Adhesion, Typical 24 hours after application	ABS: 4 pounds/inch (0.7 kg/cm) Acrylic: 4 pounds/inch (0.7 kg/cm) Acrylic enamel: 4 pounds/inch (0.7 kg/cm) Fruehauf pre-painted panels: 4 pounds/inch (0.7 kg/cm) Polycarbonate: 4 pounds/inch (0.7 kg/cm) Urethane paints: 4 pounds/inch (0.7 kg/cm) Aluminum, alodine: 8 pounds/inch (1.4 kg/cm) Chrome: 5 pounds/inch (0.9 kg/cm) Polypropylene: 3 pounds/inch (0.5 kg/cm)		
Tensile Strength	5 pounds/inch at 73 °F (0.9 kg/cm at 23 °C)		
Chemical Resistance	Resists mild alkalis, mild acids, and salt Excellent resistance to water (does not include immersion)		
Flammability	ASTM E84 test report: click here or go to the On-line Catalog at 3Mgraphics.com All available test reports: call 1-800-328-3908		

# **Application Characteristics**

Characteristic	Value	
Finished Graphic Application Recommendation	Surface type: Flat, with and without rivets, simple curves, moderate compound curves  Substrate type: Smooth, rigid vehicle materials such as glass, aluminum, paint, ABS molding  Application method: Wet or dry  Application temperature (air and substrate):  Flat surfaces with and without rivets: 50–100 °F (10–38 °C)	
Temperature Range After Application	-40 to +225 °F (-40 to +107 °C) (not for extended periods of time at the extremes)	
Graphic Removal	Not removable	

## Colors

Solid Colors			Metallic and Transparent
10 White	53 Cardinal Red	101 Nimbus Gray	120 Satin Aluminum
11 Pearl Gray	54 Light Orange	103 Magenta	131 Satin Gold
12 Black	56 Dark Green	105 Harvest Gold	201 Slate
13 Tomato Red	57 Olympic Blue	107 Light Blue	211 Charcoal
14 Bright Orange	58 Burgundy	117 Persian Blue	217 Dark Blue
15 Bright Yellow	59 Putty	121 Light Gray	227 Bright Blue
16 Khaki Green	61 Mid Gray	127 Boat Blue	229 Copper
17 Vivid Blue	63 Geranium	136 Lime Green	239 Chocolate Brown
19 Deep Mahogany Brown	64 Apricot	151 Traffic Gray	241 Gold
20 Matte White	65 Light Lemon Yellow	177 Shadow Blue	243 Steampunk Red
22 Matte Black	66 Forest Green	186 Bright Green	247 Petroleum Blue
23 Deep Red	69 Duranodic	187 Wedgewood Blue	249 Champagne
24 Terra Cotta	74 Red Orange	196 Apple Green	114 Transparent
25 Sunflower	77 Peacock Blue	197 Light Navy	
27 Indigo (Navy)	78 Plum	263 Perfect Match Red	
29 Russet Brown	81 Stone Gray	273 Process Magenta	
31 Medium Gray	86 Robin Egg Blue	276 Bottle Green	
37 Sapphire Blue	89 Sandstone	293 Atomic Red	
38 Royal Purple	90 Antique White	307 Dark Aqua	
39 Tan	91 Dove Gray	357 Bermuda Blue	
41 Dark Gray	93 Imperial Red	397 Dark Blue	
46 Kelly Green	96 Teal		
47 Intense Blue	97 Soft Blue		
48 Purple	98 Dark Violet		
49 Beige	99 Fawn		

# Warranty Information

## Warranty Coverage Overview

The warranty coverage for eligible graphics is based on the user both reading and following all applicable and current 3M Graphics Product and Instruction Bulletins. The warranty period for eligible graphics is as stated in the 3M Graphics Warranties Matrices at the time that the film was purchased. Information found at <u>3M.com/graphicswarranties</u> includes:

- 3M Graphics Warranties Bulletin
  - This bulletin contains information on limitations and exceptions, and warranty period reductions for 3M Graphics Warranties. The warranty period may be reduced and stipulations may apply for certain constructions, applications, and graphic exposures as covered in this Bulletin.
- 3M Graphics Warranties Selector
  - Use this selector to search for your vertical warranty period by product type, ink type, film name, and/or ink/printer platform.
- U.S. Desert Southwest Region Map
  - Use this map of hot, arid desert areas to determine if you are subject to reduced warranted durabilities.

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

# (i) IMPORTANT NOTE

Screen printed vehicle graphics require a liquid clear coat in order to be eligible for the 3M™ MCS™ Warranty. Liquid clear coats such as 9730i may haze, which is not covered by the 3M™ MCS™ Warranty.

## 3M Basic Product Warranty

3M Graphics Products are warranted to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in its applicable 3M Graphics Product Bulletin and as further set forth in the 3M Graphics Warranties Bulletin.

#### Limited Remedy

The limited remedy applicable to each warranty is addressed in the 3M Graphics Warranties Bulletin found at 3M.com/graphicswarranties.

## Limitation of Liability

Except where prohibited by law, 3M SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO PURCHASER OR USER FOR ANY DIRECT (EXCEPT FOR THE LIMITED REMEDY PROVIDED IN THE 3M GRAPHICS WARRANTIES BULLETIN), 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 3M'S GRAPHICS PRODUCTS, SERVICES, or THIS BULLETIN. This limitation of liability applies regardless of the legal or equitable theory under which such losses or damages are sought.

#### Warranty Period Matrices

See the 3M Graphics Warranties Matrices at 3M.com/graphicswarranties, for vertical warranty period information specific to your film.

#### Additional Limitations

See the 3M Graphics Warranties Bulletin at <u>3MGraphics.com/warranties</u>, for terms, additional limitations of your warranty, if any, and limitations of liability.

# Factors that Affect Graphic Performance Life

The actual performance life of a graphic is affected by:

- the combinations of graphics materials used.
- complete ink drying or curing.
- selection, condition and preparation of the substrate.
- surface texture.
- application methods.
- · angle and direction of sun exposure.
- environmental conditions.
- cleaning or maintenance methods.

# Graphics Manufacturing



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Before using any equipment, always read the manufacturer's instructions for safe operation.

## 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.

## Thermal Transfer Printing

Formulations and processing conditions can affect ink durability. Refer to the 3M Product and Instruction Bulletins for your ink limitations and proper usage.

This film can be imaged with narrow width thermal transfer printing systems. Refer to the equipment manufacturer's literature for details.

#### Cutting

See 3M Instruction Bulletin 4.1 for Sheeting, Scoring and Film Cutting details.

#### Weeding

The excess film should be weeded (removed) as soon after cutting as practical. This is to minimize the effect of possible adhesive flow 24 or more hours after cutting.

## **Graphic Protection**

Graphic protection may improve the appearance, performance and durability of the graphic. Click on the graphic protection options listed in Product Bulletin or see the 3M Graphics Market Product Catalog, for more information.



#### **IMPORTANT NOTE**

During installation, scratches may occur on films without graphic protection.

#### **Application Tapes**

There are two types of application tapes. See 3M Instruction Bulletin AT-1 to determine what application tape is recommended for the film or finished graphic.

#### **Premasking Tape**

Increases stiffness during application while preventing stretching and damage. Use when little or no liner is exposed. See <u>3M Instruction</u> Bulletin 4.3 for complete details.

# 3M™ Scotchcal™ ElectroCut™ Graphic Film

## Prespacing Tape

Holds cut and weeded letters or graphics in place during application and after removing the film liner, while preventing stretching and damage. Use when large amounts of liner are exposed. See <u>3M Instruction Bulletin 4.3</u> for complete details.

## Application and Installation

In addition to other 3M Bulletins specified in this document, the following Bulletins provide details that you may need to successfully apply a graphic.

- 3M Instruction Bulletin 2.1 Design of graphics.
- 3M Instruction Bulletin 3.11 Screen Printing, 3M™ Screen Printing Ink Series 1900 four color and Screen Print Clear VI0402.
- <u>3M Instruction Bulletin 3.12</u> Screen Printing. 3M™ Screen Printing Ink Series 1900 Line Color and Screen Print Clear VIO402.
- <u>3M Instruction Bulletin 3.20</u> Screen Printing, 3M™ Screen Printing UV Ink Series 9800 for Line Color Only.
- 3M Instruction Bulletin 3.21 Screen Printing, 3M™ Screen Printing UV Ink Series 9800 for Four Color Only.
- 3M Instruction Bulletin 5.7 Application, Wet Method for Translucent, Inkjet, Screen Printed and Cut Graphics

## Stretchability

Many finished graphic constructions can be stretched without primer or relief cuts and maintain lift resistance.

• For Straight trucks, semi-trucks and semi-trailers, see <u>3M Instruction Bulletin 5.4</u> for details and exceptions.

#### 3M<sup>™</sup> Tape Primer 94 and Adhesion Promoter 111

3M recommends that where the film will be stretched, use primer to maximize a graphic's bond to its substrate.

## Maintenance and Cleaning

Use a cleaner designed for high-quality painted surfaces. The cleaner must be wet, non-abrasive, without solvents, and have a pH value between 3 and 11 (neither strongly acidic nor strongly alkaline). See <u>3M Instruction Bulletin 6.5</u> for details.

#### Removal

Not removable. 3M makes no claims as to the ease or speed of removal. This product may not remove similarly to other products in the same category. See <u>3M Instruction Bulletin 6.5</u> for details.

# Shelf Life, Storage and Shipping

#### Shelf Life

The shelf life is **never more than 3 years** from the date of manufacture on the original box.

If you process the film, the shelf life is changed to **1 year** from the processing date, but not later than the 3 year maximum from the manufacturing date.

#### Storage Conditions

- 40° to 100 °F (4° to 38 °C)
- Out of sunlight
- Clean, dry area
- Original container
- Bring the film to room temperature before use

#### Shipping Finished Graphics

Flat, or rolled printed side out on 6 inch (15 cm) or larger core. This helps prevent the application tape, if used, from popping off.

# 3M™ Scotchcal™ ElectroCut™ Graphic Film

# Health and Safety



## **CAUTION**

When handling any chemical products, read the manufacturers' container labels and the Safety Data Sheets (SDS) for important health, safety and environmental information. To obtain SDS sheets for 3M products go to 3M.com/SDS, 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 manufacturer's instructions for safe operation.

