

## 3662

### Product Description

- For Solvent, UV, and Latex Inkjet Printing and Solvent and UV Screen Printing
- 2-mil cast vinyl film

### Product Features

- **Ideal for sidewalk graphics**
- High-tack, pressure-sensitive adhesive
- Removable from sidewalk surfaces within the warranted period
  - Not removable from most other surfaces
- Expected Performance Life of 10 years (unwarranted period for unprinted film with no graphic protection, applied to a flat, vertical, outdoor surface in a non-abusive environment)

### Recommended Types of Graphics and End Uses

- Sidewalk graphics applied to unsealed, outdoor, pedestrian traffic surfaces
- Graphics applied to indoor and outdoor concrete block wall surfaces

When constructed and used as described in this Bulletin, these types of graphics and end uses may be warranted by the 3M™ MCS™ Warranty or the 3M Performance Guarantee. Please read the entire Bulletin for details.

### Recommended Compatible Products

See [3M.com/graphicswarranties](https://www.3m.com/graphicswarranties) 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

- [3M™ Screen Printing Ink Series 1900 \(Solvent\)](#), line color and four color
- [3M™ Screen Printing UV Ink Series 9800](#), line color and four color

### Graphic Protection

For Sidewalk graphics or digital printing:

- [3M™ Scotchcal™ Matte Overlamine 3647](#) (required for sidewalk signs, see section on Slip Resistance below)

For graphics applied to indoor and outdoor concrete block wall surfaces:

- [3M™ Screen Print Gloss Clear 1920DR](#)
- [3M™ Screen Print Gloss Clear 1930](#)
- [3M™ Screen Print UV Gloss Clear 9730i](#)
- [3M™ Screen Print UV Gloss Clear 9740i](#)
- [3M™ Screen Print UV Gloss Clear 9800CL](#)
- [3M™ Screen Print UV Gloss Clear 9800M](#)

### Application Tapes

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

#### Quick Links

- [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.



## Characteristics

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

### Physical Characteristics

Characteristic	Value
Material	Cast Vinyl
Film Color	White, opaque
Thickness	<b>Without adhesive:</b> 2 mil (0.05 mm) <b>With adhesive:</b> 6-7 mil (0.15–0.17 mm)
Adhesive	Pressure-sensitive
Adhesive Color	Gray
Liner	Polyethylene-coated layflat paper
Adhesion, Typical 24 hours after application	N/A (highly dependent on substrate and temperature)
Tensile Strength	5 pounds/inch at 73 °F (0.9 kg/cm at 23 °C) minimum
Chemical Resistance	Resists mild alkalis, mild acids, and salt Excellent resistance to water (does not include immersion)
Flammability	Go to the On-line Product Catalog at <a href="http://3M.com/graphics">3M.com/graphics</a> or Call 1-800-328-3908.

### Application Characteristics

Characteristic	Value
Finished Graphic Application Recommendation	<b>Surface type:</b> Flat <b>Surface type:</b> Unsealed, outdoor pedestrian traffic, including asphalt, concrete, and paving bricks <b>Application method:</b> Dry <b>Application temperature:</b> 70 °F to 90 °F (21 °C to 32 °C) air, substrate
Temperature Range After Application	-65 to +225 °F (-54 to +107 °C) Not for extended periods of time at the extremes
Graphic Removal	Removable from sidewalk surfaces within the warranted period (Not removable from most other surfaces)

## Warranty Information

### Certificate of 3M™ MCS™ 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™ MCS™ Warranty by viewing the Warranty Period found within the Product Bulletin or using the warranty selector at [www.3m.com/graphicswarranties](http://www.3m.com/graphicswarranties).

### 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 [3M.com/graphicswarranties](http://3M.com/graphicswarranties) 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 warranty period by product type, ink type, film name, graphic protection, orientation 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 durability.

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.

### 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](http://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**

3M™ MCS™ Warranty for Approved Digital printers & inks in MCS Certification Database			
Zone	Zone 1	Zone 2	Zone 3
Graphic Protection	Non-vertical	Non-vertical	Non-vertical
3647 (required for sidewalk graphics) *	3 months	3 months	3 months

\* 3M™ Scotchcal™ Matte Overlamine 3647 is the only overlamine approved with inkjet printed 3662-10. Surface defects like pinch roller marks or mottling may occur after inkjet printing. When laminated with 3647, these artifacts are generally not visible in final graphic and are not covered under warranty.

**NOTE:** For non-digitally printed Finished Graphics, check your eligibility for the 3M™ MCS™ Warranty by viewing the Warranty Period using the warranty selector at [www.3m.com/graphicswarranties](http://www.3m.com/graphicswarranties).

**Additional Limitations**

See the 3M Graphics Warranties Bulletin at [3MGraphics.com/warranties](http://3MGraphics.com/warranties), 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 and complete ink drying or curing.
- selection, condition and preparation of the substrate.
- surface texture.
- application methods.
- angle and direction of sun exposure and environmental conditions.
- cleaning or maintenance methods.

**Graphics Manufacturing**

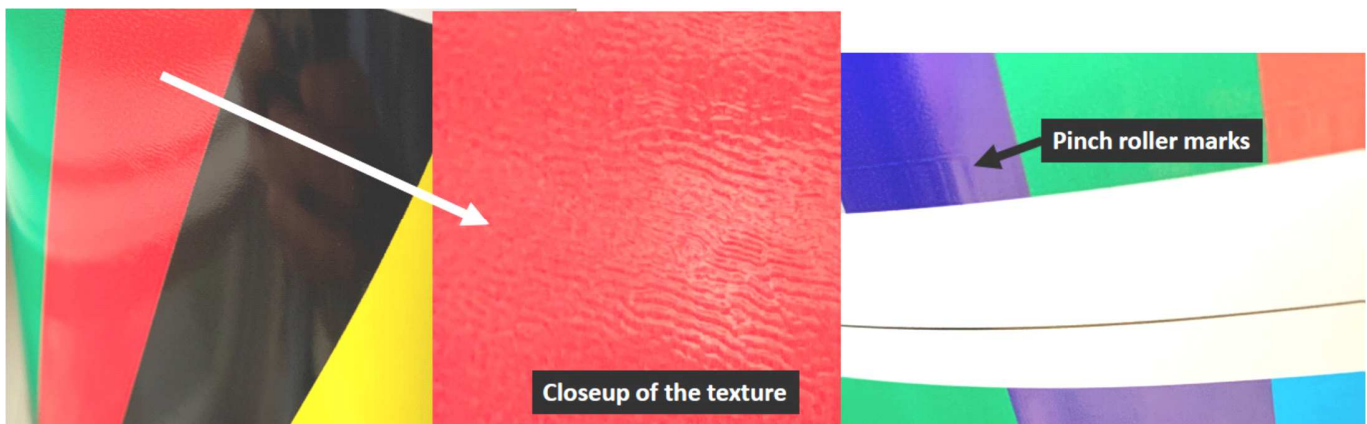


**CAUTION**

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

**Printing Expectations**

Digitally printing this product with a solvent, latex, or UV printer may result in visual changes in the film surface when compared to other 3M digitally printed films. The images below show examples of a “textured” appearance and pinch roller marks that can happen during printing. These visual changes are a result of the product construction and should not be considered defective. When the 3647 overlamine is applied, it will mask the visual changes. The visual changes will not affect the performance of the graphic product when used as a sidewalk graphic. Graphic Film 3662 should only be used with 3647 for sidewalk graphics. Using digitally printed 3662 for any other application is not warranted.



## Cutting

See [3M Instruction Bulletin 4.1](#) for Sheeting, Scoring and Film Cutting details.

## 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 [3M Instruction Bulletin 4.3](#) for complete details.

### 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 [3M Instruction Bulletin 4.3](#) 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 4.22](#) Lamination Basics for Inkjet Printed Graphics.
- [3M Instruction Bulletin 5.33](#) Application and Maintenance of Sidewalk Signs
- [3M Instruction Bulletin 5.5](#) Application, General Procedures for Interior and Exterior Dry Application.
- [3M Instruction Bulletin 6.5](#) Storage, Handling, Maintenance, and Removal of Films and Sheetings

## 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 [3M Instruction Bulletin 6.5](#) for details.

## Removal

Removable from sidewalk surfaces within the warranted period (Not removable from most other surfaces)

## Slip Resistance for Floor or Sidewalk Sign Graphics

3M™ Scotchcal™ Matte Overlamine 3647 is the required overlamine for outdoor sidewalk graphics, and Overlamine 3647 has been evaluated to the following standards.

UL 410, "Slip Resistance of Floor Surface Materials."  
Floor-Graphic Material as to Slip Resistance Only  
File No: SA11595  
Average Dry SCOF  $\geq 0.5$

ASTM E303-83, "Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester."  
Average BPN Dry = 95  
Average BPN Wet = 40

IMPORTANT NOTE: 3M™ Scotchcal™ Matte Overlamine 3647 meets the requirements of skid resistance values, or British Pendulum Number (BPN), as set forth in the proposed European norms prEN1341 and prEN1342 for pedestrian surfaces.

## 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.

## 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](https://www.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.

### Commercial Solutions

3M Center, Building 220-12E-04 St. Paul, MN 55144

1-800-328-3908

[3M.com/Graphics](https://www.3m.com/Graphics)

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