

## Product Description

- 2-mil, white vinyl film
- Use films 3635-30 and 3635-70 for fluorescent lighting applications
- Use films 3735-50 and 3735-60 for LED applications

## Product Features

- Available in four light transmission levels
- Pressure sensitive, permanent adhesive adheres to flat, rigid substrates
- Create custom lighting effects for backlit applications
- Control brightness and light distribution within light boxes without hotspots
- Eliminate need to back-spray thermoformed applications
- Expected Performance Life of 7 years (unwarranted period for unprinted film with no graphic protection, applied to a flat, vertical, outdoor surface)

### 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.

## Recommended Types of Graphics and End Uses

- Internally-illuminated signs
- Thermoformable under controlled conditions
- First surface applications using films 3635-30, 3735-50, and 3735-60 without being covered by another film
- Second surface applications without applying another film
- Backlit channel letters, signs, and displays

When constructed and used as described in this Bulletin, these types of graphics and end uses may be warranted by the 3M™ MCS™ Warranty. Refer to the base film or flexible substrate's 3M Product Bulletin for details on specific constructions and any 3M Warranty that may apply when using this product.

## 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.

## Films

- [3M™ Scotchcal™ Translucent Film Series 3630](#)
- [3M™ Scotchcal™ Translucent Film Series 3730](#)
- [3M™ Scotchcal™ Translucent Film IJ3630-20](#)
- [3M™ Scotchcal™ Translucent Film IJ3630-50](#)
- [3M™ Scotchcal™ Translucent Film IJ3630-60](#)

## Graphic Protection

- [3M™ Scotchcal™ Luster Overlaminates 3640](#)
- [3M™ Scotchcal™ Matte Overlaminates 3642](#)
- [3M™ Scotchcal™ Gloss Overlaminates 3658G](#)
- [3M™ Scotchcal™ Matte Overlaminates 3660M](#)

## Application Tapes

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



## 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).

## Characteristics

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

### Physical Characteristics

Characteristic	Value	
Material	Vinyl	
Color	White color; uniform in both reflective and transmitted light	
Thickness	<b>Without adhesive:</b> 2 mil (0.05 mm) <b>With adhesive:</b> 3-4 mil (0.08-0.10 mm)	
Adhesive	Pressure-sensitive	
Adhesive Color	Clear	
Liner	78 pound, white kraft paper	
Tensile Strength	5 pounds/inch at 73 °F (0.9 kg/cm at 23 °C) minimum	
Chemical Resistance	<ul style="list-style-type: none"> <li>Resists mild alkalis, mild acids, and salt</li> <li>Excellent resistance to water (<i>does not include immersion</i>)</li> </ul>	
Flammability	ASTM E84 reports: <a href="#">3635-30</a> ; <a href="#">3635-70</a> ; <a href="#">3735-50</a> & <a href="#">3735-60</a> or go to the On-line Product Catalog at <a href="http://3Mgraphics.com">3Mgraphics.com</a> All other test reports: call 1-800-328-3908	
Light Transmission, typical	3635-30: 41% 3635-70: 63%	3735-50: 50% 3735-60: 62%

### Application Characteristics

Characteristic	Value
Finished Graphic Application Recommendation	<b>Surface type:</b> Flat <b>Surface type:</b> Acrylic, polycarbonate, PETG (glycol-modified polyethylene terephthalate) <b>Application method:</b> Wet <b>Application temperature:</b> 60 °F (16 °C) minimum air, substrate
Adhesion, Typical 24 hours after application	<b>Acrylic panels:</b> 3 pounds/inch (0.5 kg/cm)
Applied Film Shrinkage	0.015 inch (0.4 mm)
Finished Graphic Exposure Temperature	-20 to +175 °F (-29 to +80 °C) (not for extended periods of time at the extremes)
Graphic Removal	Not removable

## 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 [3M.com/graphicswarranties](https://www.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 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.

### 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](https://www.3m.com/graphicswarranties).

### Limitation of Liability

Except to the extent prohibited by law, 3M SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO PURCHASER OR USER FOR ANY DIRECT (EXCEPT FOR THE LIMITED REMEDY PROVIDED HEREIN), 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.

### Additional Limitations

See the 3M Graphics Warranties Bulletin at [3MGraphics.com/warranties](https://www.3m.com/graphicswarranties), for terms, additional limitations of your warranty, if any, information on reduced warranties for different exposures, and limitations of liability.

### Factors that Affect Graphic Performance Life

The actual performance life of a graphic is affected by:

- the correct combinations of 3M-recommended graphics products
- the ink formulation
- 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

### CAUTION

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

## Screen Printing

This film series has perforations. The screen printer must periodically insert scrap paper to clear the screen of buildup.

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

## Completely Dry Graphics

### IMPORTANT NOTE

Incomplete drying or curing can result in graphic failure including curling, increased shrinkage and adhesion failure, which are not covered under any 3M Graphic Warranty.

See the specific ink's 3M Product and Instruction Bulletin for more details.

## Cutting

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

### IMPORTANT NOTE

For best results use a clear substrate and a diffuser with Dual Color film. If the Dual color film is applied first surface apply the diffuser film second surface. Application of Dual Color film directly to a white substrate may tend to wash out the face color of the Dual Color film.

## 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 2.4](#) Design of Cabinets for Light Boxes and Channel Letters
- [3M Instruction Bulletin 5.5](#) Application, General Procedures for Interior and Exterior Dry Application
  - For roll application, the dry method is acceptable.
- [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 strong solvents, and have a pH value between 3 and 11 (neither strongly acidic nor strongly alkaline). See [3M Instruction Bulletin 6.1](#) for details.

## Removal

These films are not removable. See [3M Instruction Bulletin 6.5](#) 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.

## 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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