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

## Product Description

- 2-mil, vinyl translucent cast vinyl film
- Matte surface finish that eliminates glare and provides uniform color in reflective light

## Product Features

- Built in Graphic Protection System (GPS), which is a top coat that increases durability and cleanability (Film 3632GPS is the same as [3M™ Scotchcal™ Translucent Film Series 3630](#) with the addition of GPS)
- Clear pressure-sensitive adhesive
- Synthetic layflat liner that is not affected by water or humidity
- Designed especially for electronic cutting
- Thermoformable
- For flat surfaces
- 22 crisp clear colors, many with simulated PANTONE® color references
- Expected Performance Life of 10 years (unwarranted period for unprinted film with no graphic protection and not thermoformed, applied to a flat, vertical, outdoor surface)

## Recommended Types of Graphics and End Uses

- Interior or exterior use on rigid plastic sign faces
- Thermoforming on rigid plastic surfaces
- May be used **OVER** [3M™ Scotchcal™ High Gloss Overlaminate 3640GPS](#) and [3M™ Scotchcal™ Matte Overlaminate 3642GPS](#) for numbers or letters.

### IMPORTANT NOTE

Do not use graphic protection on top of Film Series 3632GPS.

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

## Recommended Compatible Products

### 3M Graphic Materials

- [3M™ Blockout Film 3635-20B](#)
- [3M™ Blockout Film 3635-22B](#)
- [3M™ Diffuser Film 3635-30](#)
- [3M™ Diffuser Film 3635-70](#)

### Substrates

- Flat, rigid substrates, see "Application Characteristics" on page 2

### Application Tapes

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



## Characteristics

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

### Physical Characteristics

Characteristic	Value
<b>Material</b>	Translucent vinyl with protective top coat
<b>Thickness</b>	<b>Without adhesive:</b> 2 mil (0.04 mm) <b>With adhesive:</b> 3 – 4 mil (0.08 – 0.1 mm)
<b>Adhesive</b>	Pressure-sensitive
<b>Adhesive Color</b>	Clear
<b>Liner</b>	Synthetic
<b>Tensile Strength</b>	5 pounds/inch at 73 °F (0.9 kg/cm at 23 °C)
<b>Adhesion, Typical 24 hours after application</b>	<b>Acrylic and uncoated, clear polycarbonate (rigid substrate):</b> 4 pounds/inch (0.7 kg/cm)
<b>Chemical Resistance</b>	<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>
<b>Color</b>	See "Colors" on page 3.

### Application Characteristics

Characteristic	Value
<b>Finished Graphic Application Recommendation</b>	<p><b>Surface type:</b> Flat, without rivets</p> <p><b>Surface type*:</b> 3M flexible substrates; rigid substrates such as flat acrylic, polycarbonate**, co-polyester sign sheet, glass</p> <p><b>Application method:</b> Wet, typical</p> <p><b>Application temperature:</b> 60 °F (16 °C) minimum air, substrate</p>
<b>Temperature Range After Application</b>	<p>-50 to +170 °F (-45 to +77 °C) (not for extended periods of time at the extremes)</p> <p>Low temperatures impacts on film applied to flexible substrates may result in cracking of the film and/or substrate</p>
<b>Typical Applied Film Shrinkage</b>	<p>1/16 inch (1.6 mm)</p> <p>Shrinkage greater than this value may be caused by inadequate surface preparation, insufficient film overlaps and/or failure to resqueegee the graphic after resting at least 16 hours.</p>
<b>Graphic Removal</b>	Permanent

\*These films typically adhere to solar-grade polycarbonate substrate. However, some lots of this substrate may inhibit adhesion. Contact Technical Service if you are having difficulty. See [3M Instruction Bulletin 5.7](#) for additional information.

\*\*Polycarbonate substrates may require oven drying before use due to outgassing of moisture from the polycarbonate causing the film to bubble. Refer to the manufacturers' instructions.

#### IMPORTANT NOTE

The user is responsible for determining and complying with all applicable building codes that affect the use of materials in interior and exterior awning, banner and sign face applications, including flammability standards. For more information on flammability requirements, contact your local building code officials. For information on the results of flammability testing on 3M flexible substrates, call 1-800-328-3908.

## Colors

Selected 3M product colors are a simulation of a PANTONE®-identified color standard. You can view these colors at [3Mgraphics.com](http://3Mgraphics.com). Go to Tools & Support, then [Pantone® Color Reference](#). Use current PANTONE Color Publications for accurate color. PANTONE® is the property of Pantone LLC. ©Pantone LLC, 2013. Produced under License Agreement No. 813R between 3M and Pantone LLC.

### IMPORTANT NOTE

Color measurements are based on reflected light, not transmitted light.

### Color Chart for Film Series 3632GPS

Product Color	PANTONE Color	Product Color	PANTONE Color	Product Color	PANTONE Color
 3632-20 White	Not Available	 3632-49 Burgundy	PANTONE 188 C	 3632-015 Yellow	PANTONE 109 C
 3632-22 Black*	PANTONE Black C	 3632-53 Cardinal Red	Not Available	 3632-126 Dk Emerald Green	PANTONE 3435 C
 3632-25 Sunflower	PANTONE 123 C	 3632-73 Dark Red	Not Available	 3632-127 Intense Blue	PANTONE 300 C
 3632-26 Green	PANTONE 349 C	 3632-76 Holly Green	Not Available	 3632-156 Vivid Green	PANTONE 355 C
 3632-33 Red	Not Available	 3632-83 Regal Red	PANTONE 187 C	 3632-157 Sultan Blue	PANTONE 288 C
 3632-36 Blue	PANTONE 281 C	 3632-87 Royal Blue	PANTONE 274 C	 3632-167 Bright Blue	PANTONE 2945 C
 3632-43 Lt. Tomato Red	Not Available	 3632-97 Bristol Blue	PANTONE 294 C	 3632-246 Teal Green	PANTONE 322 C
 3632-44 Orange	PANTONE 1655 C				

\* Film 3632GPS-22 is effectively opaque for most sign uses.

### Custom Colors and Color Matching

- Custom colors are available by request. Pigment durability and manufacturing limitations do not permit exact color matching of all color shades.

## 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 [3MGraphics.com/warranties](http://3MGraphics.com/warranties) 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 [3MGraphics.com/warranties](http://3MGraphics.com/warranties).

### 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.

See the 3M Graphics Warranties Matrices at [3MGraphics.com/warranties](http://3MGraphics.com/warranties), for vertical warranty period information specific to your film.

### Warranty Period Matrices - Vertical

**Table A. Warranty Period (in years) for Finished Graphics in a Standard U.S. Vertical Exposure.**

Substrate	Film	Ink	Graphic Protection	Face	Thermoform	Warranty Period
Rigid Polycarbonate, Acrylic, PETG	3632GPS	None	None	First or Second Surface	No	9 years
					Yes	6 years

## Reduced Warranty Period for Other Graphic Exposures

For other graphic exposures, determine the applicable reduced warranty period by multiplying the standard warranty period (in years) for your graphic construction as shown in the applicable warranty period tables by the percentage shown for the intended graphic exposure. See "Exposure Types" on page 3 of the 3M Graphics Warranties Bulletin for graphic exposure definitions.

**Table B. Reduced Warranty Period for Other Graphic Exposures**

If the Graphic Exposure is:	Use this Percentage of Vertical Exposure, Warranty Period	Calculation Examples
Desert Southwest Vertical	70%	0.7 x 7 years = 4.9 years
U.S. Horizontal	0%	0 x 4 years = 0 years

### 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, 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.
- 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



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

## Fabrication

### Channel Letter Faces

When using this film on rigid plastic channel letter faces, avoid contact with the adhesive or solvent used to attach the trim cap edge. These adhesives attack film and cause curling, lifting, and premature failure of the film.

### Cutting

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

## Application Tapes

There are two types of application tapes. See [3M Instruction Bulletin AT-1](#) to determine what application tape is recommended for your 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 5.16](#) Thermoforming
- [3M Instruction Bulletin 5.1](#) Select and Prepare Substrates for Graphic Application
- [3M Instruction Bulletin 5.7](#) Application, Wet Method for Translucent, Inkjet, Screen Printed and Cut Graphics
  - For applications by hand, the detergent and water application method is recommended for this pressure-sensitive film. Dry application by hand may leave dark streaks or bubbles that could be visible in transmitted light.

## 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.

## 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 manufacturer's 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](http://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.

## Bulletin Change Summary

For the most current 3M Technical Information available to successfully use this product, please view this Bulletin electronically and click on the blue underlined links to view the relevant documents. Please read the entire Bulletin thoroughly.

### Release I MAY-2016:

- Updated to new format. Please read the entire Bulletin thoroughly.

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