



# Panagraphics™ III

## Wide Width Flexible Substrate

### Product Bulletin

**Product Description** 3M™ Panagraphics™ III is a flexible substrate for illuminated signage.

**Product Line** Illuminated signage Panagraphics™ III white, translucent, semi-glossy

**Product Characteristics** These are typical values for unprocessed products.  
Contact your 3M representative for a custom specification.

**Physical & Application**

Material	white pigmented vinyl with a polyester scrim
Surface finish	glossy
Thickness (film)	580 µm (0.58 mm)
Light transmission	21% ± 2%
Weight	650 g/m <sup>2</sup>
Tensile strength	
- Tear weft	15 kg / cm (85 pounds / inch)
- Tear warp	13.4 kg / cm (75 pounds / inch)
- Tensile weft	26.6 kg / cm (150 pounds / inch)
- Tensile warp	26.6 kg / cm (150 pounds / inch)
Maximum finished size	58 m <sup>2</sup> (625 square feet) per warranted face
Service temperature	-30 °C to +70 °C

**Storage**

Shelf life	1 year after receipt from 3M, unprocessed. Up to 6 months decorated.
Storage conditions!	+4 °C to +40 °C, out of sunlight, original container in clean and dry area.

**Flammability** Flammability standards are different from country to country. Ask your local 3M contact for details, please.

**Durability**

Unprocessed film	The following durability data are given for unprocessed film only!
3M™ Performance Guarantee and MCS™ Warranty	In addition, 3M provides a guarantee/warranty on a finished applied graphic within the framework of 3M™ Performance Guarantee and/or 3M™ MCS™ warranty programs.

Visit [www.3mgraphics.com](http://www.3mgraphics.com) for getting more details about 3M's comprehensive graphic solutions.

Climatic zones Graphic durability is largely determined by the climate and the angle of exposure. Find below a table showing the durability of a product according to the angle of exposure and the geographical location of the application.

- Zone 1 Northern Europe, Italy (north of Rome), Russia
- Zone 2 Mediterranean area without North Africa, South Africa
- Zone 3 Gulf area, Africa

Exposure types



The face of the graphic is  $\pm 10^\circ$  from vertical.

Interior: Interior means an application inside a building without direct exposure to elements.

<b>Vertical outdoor exposure</b>	<b>Zone 1</b>	<b>Zone 2</b>	<b>Zone 3</b>
	6 years	5 years	4 years
<b>Interior application</b>	<b>Zone 1</b>	<b>Zone 2</b>	<b>Zone 3</b>
interior	10 years	10 years	10 years

## Limitations of End Uses

3M specifically does not recommend or warrant the following uses, but please contact us to discuss your needs to recommend other products.

- removing existing graphics and reusing the substrate
- graphic decoration with more than three layers of film (base film plus overlamine)
- using 3M™ Scotchcal™ Overlamine 3640GPS or 3642GPS for graphic protection
- second surface film decorating

Important Notice

- 3M Commercial Graphics Division products are not tested against automotive manufacturer specifications!

## Graphics Manufacturing

Shipping finished graphics

Rolled film side out on 150 mm (6 inch) or larger core. Do not use masking tape to secure the roll. It may stain the substrate.

Making Graphics with 3M™ Scotchcal™ Translucent Graphic Film 3630 or 3M™ Scotchcal™ Translucent Graphic Film 2330

Applying to Panagraphics™ III substrate, film series 3630 can be screen printed and/or electronically cut and film series 3M™ Scotchcal™ 2330 can only be electronically cut. Apply the film to the substrate using the wet application method or dry/roll lamination for front-lit graphics. No more than two layers of film may be applied to the substrate. The minimum decorating temperature recommended is 15 °C. See paragraph Tensioning and Attaching.

Refer to Instruction Bulletin 5.3 'Application of 3M™ Pressure Sensitive Films to 3M™ Panagraphics™ Substrates', for general application information.

> [Instruction Bulletin 5.3 'Application of 3M™ Pressure Sensitive Films to 3M™ Panagraphics™ Substrates'](#) <

## Converting Information Inkjet Printing

Adequately Dry Graphics

A too high total physical ink amount on the film results in media characteristic changes, inadequate drying, overlamine lifting, and/or poor graphic performance. The maximum recommended total ink coverage for this film is 270%.

Inadequate drying can result in graphic failure including curling, increased shrinkage and adhesion failure, which are not covered under warranty. Build enough time into your process to ensure adequate drying of the graphic.

Poorly dried film becomes soft and stretchy, and the adhesive becomes too aggressive. 3M recommends at least a minimum drying time of 24 hrs before further processing. Dry the graphic unrolled or at least as a loose wound roll standing upright.

## Attaching and Tensioning

3M recommends attaching and tensioning this substrate in a cabinet at a temperature equal to or more than 7 °C (45 °F), whether the work is being done in a fabricator's shop or in the field.

Cold temperature field installation

Artificially warm the decorated substrate to at least 7 °C (45 °F) before attaching or tensioning the sign face in a cabinet or frame.

Do not stress the decorated substrate by folding, crimping, creasing, or forming it around corners. In cooler temperatures, the films applied to the substrate become less flexible and may crack if handled roughly.

Check and re-tension large sign faces as needed when the temperature warms to more than 15 °C (60 °F).

A large sign face is one that is more than 25 m<sup>2</sup> (275 square feet) and has a height that exceeds 3.3 m (11 feet) or a width that exceeds 7.5 m (25 feet).

## Maintenance and Cleaning

Use a cleaner which must be wet, non-abrasive, without strong solvents, and have a pH value between 3 and 11 (neither strongly acidic nor strongly alkaline). Clean the finished graphic annually. Clean the graphic more often in unusually dirty environments.

## Remarks

This bulletin provides technical information only.

Important notice

All questions of warranty and liability relating to this product are governed by the terms and conditions of the sale, subject, where applicable, to the prevailing law.

Before using, the user must determine the suitability of the product for its required or intended use, and the user assumes all risk and liability whatsoever in connection therewith.

Additional Information

Visit the web site of your local subsidiary at [www.3Mgraphics.com](http://www.3Mgraphics.com) for getting more:

- details about 3M™
- additional instruction
- a complete product



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