



Envision™ Translucent Graphic Film

Serie 3730

Envision™ Translucent Film

IJ3730-50; IJ3730-60

Product Bulletin

Product Description

These cast films are perfect for durable, dimensional stable backlit applications. The low-gloss surface of film series 3730 eliminates glare and provides a uniform color with both reflected and transmitted light.

Film series 3730 is optimized for lighting applications using LED light sources.

Remark: For fluorescent lighting applications we recommend 3M™ Scotchal™ Translucent Graphic Film Series [3630](#).

All films are suitable for electronic cut or thermoform applications.

Product Line	Illuminated signage	3730-X	X = color code, translucent, semi-matte, permanent adhesive (clear). Wide selection out of large color range. Special colors available on request.
		IJ3730-50	white, translucent, semi-matte, permanent adhesive (clear).
		IJ3730-60	white, translucent, semi-matte, permanent adhesive (clear).

Product Characteristics

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

Physical & Application

Material	cast vinyl	
Surface finish	semi-matte	
Thickness (film)	50 µm (0.05 mm)	
Adhesive type	pressure-sensitive	
Adhesive appearance	clear	
Liner	transparent synthetic	
Adhesion	approx. 15 N/25 mm	FTM 1: 180° peel, substrate: glass; cond: 24 h 23°C/50%RH

Application method wet or dry

Applied shrinkage < 0.3 mm FTM 14

Application temperature minimum (air and substrate) +16°C for flat surfaces
+16°C for curved to corrugated surfaces with and without rivets

Service temperature -44°C to +77°C
Surface type flat to simple curved
Substrate type glass, PMMA, PC*, PETG*, flexible sign making substrates

*Might require drying with heat before use

Graphic removal Fair to remove with heat and/or chemicals from supported substrates.

Storage

No liability is given for ease or speed of removal of any graphic. Pay attention to adequate air and substrate temperature.

Shelf life Use within two years from the date of manufacture on the sealed original box. Use within one year after opening the box.

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

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

	Zone 1	Zone 2	Zone 3
Vertical outdoor exposure			
white/black	10 years	7 years	5 years
colors	10 years	7 years	5 years
metallics	5 years	4 years	3 years
Interior application	Zone 1	Zone 2	Zone 3
interior	12 years	12 years	12 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.

Graphics applied to

- 2nd surface to 3M™ Panagraphics™ III Wide Width Flexible Substrate not recommended.
- application to competitive flexible sign substrates.
- low surface energy substrates or substrates with low surface energy coating.
- other than flat or moderate curved/corrugated surfaces.
- stainless steel.
- surfaces that are not clean and smooth.

Graphics subjected to Important Notice

- gasoline vapors or spills.
- 3M Commercial Solutions products are not tested against automotive manufacturer specifications!
- Graphics with more than two layers of film except as described in this bulletin are not recommended.
- Non vertical applications will have a significant decrease in durability!
- 3M accepts no liability for glass breakage. See instruction bulletin 5.1 for details.
- To avoid color variations all pieces of applied film of one colored area should be processed out of one lot of material.

Graphics Manufacturing

Graphic protection can improve the appearance, performance and durability of printed graphics. Any printed graphic exposed to abrasive conditions (including vehicles), harsh cleaners or chemicals must include graphic protection in order to be warranted.

When to use an overprint clear or overlaminates See instruction bulletin GPO 'graphic protection options' for further information about selection and use of protective overlaminates and printable clears.

[> Product Bulletin Graphic Protection Options <](#)

Shipping finished graphics Flat, or rolled film side out on 130 mm (5 inch) or larger core. These methods help to prevent the liner from wrinkling or application tape, if used, from popping off.

Converting Information Electronic Cutting

Based upon cutting evaluations the minimum height for text is 25 mm using upper and lowercase Helvetica Medium. The stroke width should not be lower than 1 mm.

The variable characteristics of electronically controlled cutting equipment require users to verify their specific requirements.

Sharpness of knife blade Dull blades impart a serrated look to the edge of the cut film.

Weight of knife blade	The ideal weight slightly scores the liner. Too little weight does not cut completely through the film and the adhesive. Excessive weight cuts the liner and causes the blade to drag, accelerating wear and creating a serrated cut edge on the film.
Weeding	The excess film should be weeded (removed) as soon after cutting as practical. This is to minimize the effect of possible adhesive flow.
Temperature and relative humidity	Temperature and relative humidity are minor considerations, but avoid extreme or rapid fluctuating conditions.
Roll storage	Store the film in the same environment as the cutting equipment.
Further information	For more details refer to our instruction bulletin 4.1 'Sheeting, Scoring, Film Cutting', please.

[>Instruction Bulletin 4.1 'Sheeting, Scoring, Film cutting'<](#)

Converting Information Inkjet Printing

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%.

Adequately Dry Graphics 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.

Converting Information

Formulations and processing conditions can affect ink durability. Refer to the 3M Product and Instruction Bulletins for your ink for limitations and proper usage. Graphic protection can improve the appearance, performance and durability of your graphic.

Screen Printing

A clear coat also prevents chalking on unprinted films. Use equipment designed to handle high viscosity materials and make sure the coating is evenly applied to the specifications given in the clear's Instruction Bulletin.

Abrasion and Loss of Gloss Abrasion damage and loss of gloss are not covered by any 3M warranty. This is considered normal wear and tear.

Converting Information Thermoforming

There are unique health and safety considerations that must be understood prior to vacuum forming faces using translucent films.

Refer to Instruction Bulletin 5.16 'Thermoforming' for special recommendations, limitations and processing requirements when forming with applied films.

[>Instruction Bulletin 5.16 'Thermoforming'<](#)

Elongation limit Forming of applied film on sheets should not exceed 50% elongation.

Application See product bulletin ATR 'application tape recommendations' for information about selection and use of suitable application tapes for this product, please.

[> Product Bulletin Application Tape Recommendations <](#)

Refer to Instruction Bulletin 5.1 'select and prepare substrates for graphic application', for general application information.

[>Instruction Bulletin 5.1 'select and prepare substrates for graphic application'<](#)

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).

Refer to Instruction Bulletin 6.5 'storage, handling, maintenance and removal of films and sheetings', for general maintenance and cleaning information.

[>Instruction Bulletin 6.5 'Storage, Handling, Maintenance and Removal of Films and Sheetings'<](#)

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 for getting:

- more details about 3M™ MCST™ Warranty and 3M™ Performance Guarantee
- additional instruction bulletins
- a complete product overview about materials 3M is offering



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