



Envision™ Diffuser Film

3735-50, 3735-60



Product Bulletin

Product Description

These cast films are light managing films to create durable permanent channel letters, signs and displays. They control brightness and light distribution within light boxes without hotspots.

Films 3735-50 and 3735-60 are recommended for LED applications and provide 50% resp. 60% light transmission.

Remarks: For fluorescent lighting applications we recommend films 3635-30 and 3635-70 which provide 30% resp. 70% light transmission.

Product Line	Illuminated signage	3735-50	white, translucent, semi-matte, permanent adhesive.
		3735-60	white, translucent, semi-matte, permanent adhesive.

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	Kraft paper	
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	+16°C	minimum (air and substrate)
Service temperature	-44°C to +77°C	
Surface type	flat to simple curved	
Substrate type	glass, PMMA, PC*, PETG*	
	PC*, PETG*: Might require drying with heat before use	
Graphic removal	Fair to remove with heat and/or chemicals from supported substrates.	

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

Storage	Shelf life	2 years from the date on the original box Up to 2 years unprocessed, or processed within 1 year and apply within 1 year of processing
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Storage conditions!	+4°C to +40°C, out of sunlight, original container in clean and dry area.
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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 3M™ 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.

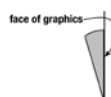
Zone 1 Northern Europe, Italy (north of Rome), Russia

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.

Vertical outdoor exposure

white

Zone 1

10 years

Zone 2

7 years

Zone 3

5 years

Limitations of End Uses

Graphics applied to

- 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.
- first surface applications that are not covered by a UV-resistant 3M film as 3730, IJ3730-50 or IJ3730-60

Important Notice

- 3M Commercial Graphics Division products are not tested against automotive manufacturer specifications!
- Non vertical applications will have a significant decrease in durability!
- 3M accepts no liability for glass breakage. See instruction bulletin 5.1 for details.
- Abrasion damage and loss of gloss are not covered by any 3M warranty. This is considered normal wear and tear.

Graphics Manufacturing

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

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