



Scotchcal™ Graphic Film

Series IJ25

Product Bulletin

Product Description

These monomeric calendered films offer great versatility making them perfect for indoor and outdoor signs and fleet graphics.

The boardy film construction is designed for easy application of printed graphics without the need of an overlamine or application tape.

Furthermore the removable version 3M™ Scotchcal™ IJ25-10R is tested and approved for use in conjunction with the recommended overlamine as base film to produce graphics for floors.

| | | | |
|---------------------|-----------------|-----------|--|
| Product Line | Inkjet printing | IJ25-10 | white, opaque, glossy, permanent adhesive (grey). |
| | | IJ25-10R | white, opaque, glossy, removable adhesive (grey). |
| | | IJ25-10TR | white, opaque, glossy, removable adhesive (clear). |
| | | IJ25-20R | white, opaque, matte, removable adhesive (grey). |

Product Characteristics

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

Physical & Application

| | | |
|-------------------------|---|--|
| Material | calendered vinyl (monomeric) | |
| Surface finish | glossy and matte (see product line) | |
| Thickness (film) | 100 µm (0.1 mm) | |
| Adhesive type | waterbased acrylic: pressure-sensitive | |
| Adhesive appearance | grey | |
| Liner | Kraft paper | |
| Adhesion | approx. 12 N/25 mm | FTM 1: 180° peel, substrate: glass; cond: 24 h 23°C/50%RH |
| | removable films of series | approx. 8 N/25 mm |
| Application method | dry only! | |
| Applied shrinkage | < 0.5 mm | FTM 14 |
| Application temperature | +6°C | minimum (air and substrate) |
| | use for floors: IJ25-10R | +16°C |
| Service temperature | -40°C to +90°C | |
| Surface type | flat | |
| Substrate type | glass, PMMA, PC*, flexible sign making substrates | |
| | use for floors: IJ25-10R | ceramic, finished wood, marble, sealed concrete, terrazzo, waxed vinyl |
| | PC*, PETG*: Might require drying with heat before use | |

Graphic removal

Removable without heat and/or chemicals from supported substrates.

Statement given for removable versions only!

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

Storage

| | |
|--------------------|---|
| Shelf life | Use within 2 years from the date of manufacture on the sealed original box. Use within 1 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 MCST™ Warranty

In addition, 3M provides a guarantee/warranty on a finished applied graphic within the framework of 3M™ Performance Guarantee and/or 3M™ MCST™ warranty programs.

Visit www.3mgraphics.com for getting more details about 3M's comprehensive graphic solutions.

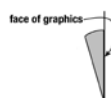
Climatic zones

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

Vertical outdoor exposure

Zone 1

Zone 2

Zone 3

white

3 years

2 years

18 months

Interior application

Zone 1

Zone 2

Zone 3

interior

3 years

3 years

3 years

Notice! Use for floors: durability (interior) - 3 months

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

- flexible substrates incl. 3M™ Panaflex™ Awning and Sign Facing 945GPS and 3M™ Panagraphics™ III Wide Width Flexible Substrate.
- low surface energy substrates or substrates with low surface energy coating.
- other than flat surfaces.
- painted or unpainted wallboards, gypsum boards and wallpapers.
- stainless steel.
- surfaces that are not clean and smooth.
- surfaces with poor paint to substrate adhesion.
- loose, broken or unsound flooring material.

Graphic removal from

- signs or existing graphics that must remain intact.

Graphics subjected to

- gasoline vapors or spills.

Important Notice

- 3M Commercial Graphics Division products are not tested against automotive manufacturer specifications!
- Wet application method is not recommended for this film.
- Non vertical applications will have a significant decrease in durability!

Special Information

3M™ Scotchcal™ LJ25-10R is tested and approved for use in conjunction with the recommended overlamine as base film to produce graphic for floors.

Following limitations of end use apply in addition to the limitations of end use in the table above.

Graphic applied to

- exterior applications
- substrates other than recommended for graphics for floors
- areas with vehicle traffic except of light slow moving traffic

Important Notice

- Film has to be protected with the recommended protective overlamine to provide the needed skid resistance.
- Place the floor graphic far enough away from entryways that they stay dry!

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 overlamine

See instruction bulletin GPO 'graphic protection options' for further information about selection and use of protective overlaminates and printable clears.

Graphic for Floors

To create a graphic for floors this film has to be protected with the recommended overlamine. No printable clear available!

[> 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 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.

To create a graphic for floors this film has to be protected with the recommended overlamine. No printable

Application

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

Graphics for Floors

Application Tapes

Graphic for floors do not require a premask or prespacing tape for application.

Avoid Lifting

Cut radiuses on any sharp corners of the graphic after lamination. Do not apply finished graphic to the edge of tiles. Keep always a distance of a few centimeter to the joints (not edge of graphic to edge of tile).

[> 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

Important notice

This bulletin provides technical information only.

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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