

Commercial Solutions Division

3M™ Scotchcal™ Graphic Film

3662-10

Product Description

3M™ Scotchcal™ Graphic Film 3662-10 is designed for making short term graphics that are applied to unsealed, outdoor, pedestrian traffic surfaces.

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|--------------|-----------------|---------|--|
| Product Line | Screen printing | 3662-10 | white, opaque, glossy, removable adhesive. |
|--------------|-----------------|---------|--|

Product Characteristics

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

Physical & Application

| | | |
|---|--|---|
| Material | cast vinyl | |
| Surface finish | glossy | |
| Thickness (film) | 50 µm (0.05 mm) | |
| Adhesive type | solvent acrylic; pressure-sensitive | |
| Adhesive appearance | grey | |
| Liner | double-sided Polyethylene coated paper | |
| Adhesion | approx. 22 N/25 mm | FTM 1: 180° peel, substrate: glass; cond: 24 h 23°C/50%RH |
| Application method | dry only! | |
| Applied shrinkage | < 3.0 mm | FTM 14 |
| Application temperature (minimum air and substrate) | +10°C | for flat surfaces |
| Service temperature (after application) | -10°C to +65°C | (not for extended periods of time at the extremes) |
| Surface type | flat | |
| Substrate type | asphalt, concrete, pavement bricks | |
| Graphic removal | Removable without 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.

The values above are the results of illustrative lab test measurements and shall not be considered as a commitment from 3M.

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

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|--------------------|---|
| Storage conditions | +4°C to +40°C, out of sunlight, original container in clean and dry area. |
|--------------------|---|

The shelf life as defined above remains an indicative and maximum data, subject to many external and non-controllable factors. It may never be interpreted as warranty.

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

The durabilities mentioned in the table below are the results of illustrative lab tests. The values show the best performance expected from these products, provided that the film will be processed and applied professionally according to 3M's recommendations.

The durability statements do not constitute warranties of quality, life and characteristics.

The durability of products is also influenced by:

- the type of substrate and thorough preparation of the surface (with 3M™ Surface Preparation System)

- application procedures
- environmental factors
- the method and the frequency of cleaning

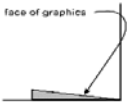
Unprocessed film The following durability data are given for unprocessed film only!

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

Horizontal:  The face of the graphic is ±5° from horizontal.

| Horizontal outdoor exposure | Zone 1 | Zone 2 | Zone 3 |
|------------------------------------|---------------|---------------|---------------|
| white | 3 months | 3 months | 3 months |

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.

For detailed graphic construction and application options along with specific Warranty periods, please see the Warranty matrices and Warranty information on [3M Graphic Solutions/Warranties](#).

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

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
- purposes other than graphics for floors/pavements.
 - substrates other than recommended.
 - areas with vehicle traffic except for light slow moving traffic.

- Graphics subjected to
- gasoline vapors or spills.

- Important Notice
- 3M Commercial Solutions products are not tested against automotive manufacturer specifications!
 - Film has to be protected with the recommended protective overlamine to provide the needed skid resistance.

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

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.

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

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.

The following Guide to Substrates will show you some substrates recommended or not recommended for the application of graphics for pavements. The substrate must be dry before application.

[> Graphics for Pavements - Guide to Substrates - <](#)

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).

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.

As outdoor graphics age, natural weathering occurs causing a gradual reduction in gloss, slight color changes, some lifting of the graphic at the edges or around rivets, and ultimately a minor amount of cracking.

These changes are not evidence of product failure and are not covered by a 3M warranty.

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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