



# 3M™ Scotchcal™ Overlamine Film 3647

## Description

### Applications and End Uses

3M™ Scotchcal™ Overlamine Film 3647 is intended only for use with 3M Scotchcal™ film 3662-10 in the making of Scotchprint® Graphics for Pavements. This graphic system is warranted by the 3M™ MCS™ Warranty.

See Product Bulletin 3662 for complete applications and uses of Scotchprint® Graphics for Pavements.

### Advantages

- Scuff-resistant, slip-resistant
- Excellent resistance to wear from high foot traffic
- Exterior, short term durability

### Limitations of End Uses

We do not normally warrant other applications, but please contact us to discuss your needs or let us suggest other 3M products.

Specifically, we do not warrant this film for the following:

- Exposure to vehicle traffic, snowploughs, snow shovels, heavy equipment traffic

### Film and Overlamine

The film and overlamine used to make screen printed, Scotchprint® Graphics for Pavements are designed to work together.

- Film 3662-10
- Overlamine film 3647

## Characteristics

| Property                       | Description                      |
|--------------------------------|----------------------------------|
| Lamine film                    | 48 Micron (0.48 mm)              |
| Thickness (film plus adhesive) | 85 micron (0.85 mm)              |
| Adhesive                       | Pressure sensitive               |
| Liner                          | 58 pound, polycoated kraft paper |

## Effective Performance Life

When overlamine film 3647 is applied to film 3662-10 in accordance with 3M recommended procedures to make a Scotchprint® Graphic for Pavements, the following performance may be expected. The performance is based upon foot traffic experience in the field. Graphics may be damaged by vehicular traffic or heavy equipment such as snowplows and snow shovels; minor edge chipping is unavoidable. These types of damage are not covered by 3M's warranty. Performance depends upon the condition and preparation of *unsealed, exterior, pedestrian surfaces* before application, the exposure conditions, and the maintenance of the graphics.

**Warranted Durability:** 3 months

## Overlamine

To make a warranted Scotchprint® Graphic for Pavements, overlamine film 3647 must be applied to film 3662-10.

Refer to the laminator operator's manual for additional details. Also see Instruction Bulletin 4.22 on Cold Roll Lamination.

## Cutting

We recommend cutting radiuses on any sharp corners. This helps prevent premature lifting of the graphic after application.

The following are common cutting methods for this film. See Instruction Bulletin 4.1 for details.

- Hand cutting
- Guillotine cutting
- Cold steel-rule die cutting

## Premasking and Prespacing

Typically, overlamine film 3647 does not require a premask or prespace tape for application.

However, if you are applying die cut, pre-spaced graphics, we recommend using 3M™ Scotchcal™ Prespace Tape SCPS-55.

## Application and Removal

See Instruction Bulletin 5.33.

## Maintenance and Cleaning

Scotchprint® Graphics for Pavements should be cleaned periodically for optimum skid resistance and appearance. See Instruction Bulletin 5.33 for detailed cleaning and maintenance instructions.

## Shelf Life, Shipping, and Storage

- Unprocessed 3647 film has a shelf life of 2 years after receipt from 3M. Processed film has a shelf life of 1 year. However, the total shelf life of a graphic before and after processing cannot exceed 2 years.
- Store the film in a clean, dry area, out of direct sunlight, at less than 38°C (100°F) and in the original container.
- We recommend storing and shipping pavement graphics lying flat or rolled, graphic side out, on a 6 inch (152 mm) diameter core. This helps prevent the film from wrinkling or popping off the liner.
- See Instruction Bulletin 6.5 for details.

## Physical Properties

The values given are typical for 3M™ Scotchcal™ Overlaminated Film 3647 and are not for use in specifications.

### Skid Resistance

Overlaminated film 3647 has been tested following the principles of BS 7976-2:2002 results are shown below.

Overlaminated film 3647 also meets the requirements for the skid resistance values (“SRV”), as set forth by the European Union in the proposed European norms prEN1341 and prEN1342 for outdoor pedestrian surfaces.

| Test Method             | Results                   |                           |
|-------------------------|---------------------------|---------------------------|
|                         | Dry Surface Skid reading  | Wet Surface Skid reading  |
| BS 7976-2:2002          |                           |                           |
| TRRL/4S slider          | 48                        | 83                        |
| 4S type slider          | 43                        | 56                        |
| PrEN 1341 and prEN 1342 | Slip resistance value dry | Slip resistance value wet |
| (EU test method)        | 49                        | 40                        |

## Physical Properties

| Property                   | Imperial Units        | Metric Units      |
|----------------------------|-----------------------|-------------------|
| Tensile strength (minimum) | 11 pound/inch at 73°F | 2.0 kg/cm at 23°C |
| Shrinkage when applied     | 0.157 inches max.     | 0.4 mm max.       |

## Health and Safety

| ⚠ Caution  |
|--|
| Refer to the package label and the Material Safety Data Sheet for health, safety, and handling information on the products referenced in this bulletin. For 3M products, if necessary, you may contact our Toxicology/Product Responsibility Department on 01344 858000. |

## 3M Related Literature

Listed below is related 3M technical literature that may be of interest.

| Subject  | Bulletin No. |
|--|--------------|
| <b>Product Bulletins</b>   |              |
| 3M™ Scotchcal™ Film 3662-10  | 3662         |
| <b>Instruction Bulletins</b>                                       |              |
| Cold Roll Lamination   | 4.22         |
| Application and Maintenance of Scotchprint® Graphics for Pavements | 5.33         |
| Storage, Handling, Maintenance, Removal                            | 6.5          |

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## Important Notice to Purchaser

The 3M products described in this publication are covered by a 3M warranty and limitation of liability.

3M’s warranty provides that if 3M finds that goods are defective in material or workmanship they will be replaced or the price refunded at 3M’s option but note that 3M does not accept liability for other direct losses (except for personal injury or death) or consequential losses relating to defective products or from information supplied by 3M.

Purchasers and users of 3M products, and not 3M supplying companies, are always solely responsible for deciding on the suitability of the 3M product for their required or intended use.

## Technical Assistance

For help on specific questions relating to 3M Commercial Graphics Division Products, contact your local Technical Service Representative.

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