

Application and Maintenance Scotchprint[®] Graphics for Pavements

General Information

This Bulletin gives instructions for the application and maintenance of Scotchprint[®] Graphics for Pavements, created with one of these combinations of films:

- Screen printing kit **4630-10** includes a 50 yard roll of each of the following:
 - 3M[™] Scotchcal[™] Film Series 3662-10 and
 - 3M[™] Scotchcal[™] Overlamine Film 3647
- Electrostatic imaging kit **4632-10** includes a 50 yard roll of each of the following:
 - 3M[™] Scotchcal[™] Electrostatic Film 8662-10 (ES) and
 - 3M[™] Scotchcal[™] Electrostatic Protective Overlamine 8947 (ES)

For the Best Results

- Read this bulletin thoroughly before starting the application. Applying a graphic is more than just adhering the film to the substrate.
- Apply the graphic only to one of the warranted application surfaces.
- Be sure the surface is completely dry before applying the graphic.
- Re-squeegee all edges to finish the graphic application.

Health and Safety

Caution

When handling any chemical products, read the manufacturers' container labels and the Material Safety Data Sheets (MSDS) for important health, safety and environmental information.

To obtain MSDS sheets for 3M products, you may contact our Toxicology Product Responsibility Department on 01344 858000.

When using any equipment, always follow the manufacturers' instructions for safe operation.

Application Surfaces

Warranted Application Surfaces

Warning

The safety and performance of pavement graphics are warranted or assured only on the unsealed, exterior pedestrian surfaces listed below. Any other surface must be approved in writing by 3M Commercial Graphics Division Technical Service

prior to application.

- Asphalt
- Unsealed concrete
- Paving bricks

About Textured Exterior Surfaces

Some exterior surfaces are highly dimensional and the film adhesive may not have enough contact area to adhere properly to the surface. Contact your local 3M Commercial Graphics Technical Service person if you have a question about the suitability of any surface. (See Figure 1)

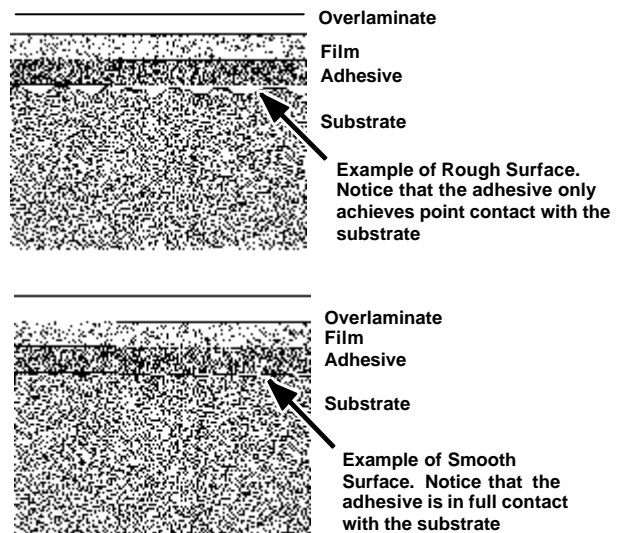


Figure 1. Examples of Film Contact on Rough and Smooth Surfaces

Important Note

When pavement graphics are used on vehicle roadways for special events such as parades and marathons, remove the graphics immediately upon completion of the event and before normal traffic resumes.

Condition of Surfaces

- The pedestrian surface must be secure and in good condition. Only flat surfaces are allowed.

- Avoid installing pavement graphics on sealed surfaces. Application to sealed surfaces results in extremely high adhesion that makes removal of the graphic difficult.
- Be sure the surface finish has adequate integrity. Surfaces that have poor internal bond may separate or crumble, result in premature lifting of the graphic.
- Be sure the surface is clean and dry. Pavement graphics will not adhere properly to wet, damp or contaminated surfaces. The surface must be free of loose particles and grass or moss.
- Be sure the surface temperature is between +10°C and +32°C (50° to 90°F). In cooler temperatures warming the ground with a flame gun will aid adhesion.

Location of Pavement Graphics

Pavement Graphics may be damaged by heavy equipment such as snow plows, shovels and power sweepers as well as by dragging heavy items across the top of the graphic. If possible, locate pavement graphics out of the main stream flow of heavy equipment traffic. Minor edge chipping is unavoidable.

Note: Pavement Graphics are specifically NOT designed for use where there is vehicular traffic.

Cutting

When using guillotine and die cutting equipment to cut pavement graphics, check and carefully clean the blades frequently to remove adhesive buildup.

Surface Preparation

Important Note

The adhesive on pavement graphics cannot adhere properly to wet or damp surfaces. Therefore, never use any cleaning solvents or solutions, including detergent and water, to clean a surface or to apply the graphic.

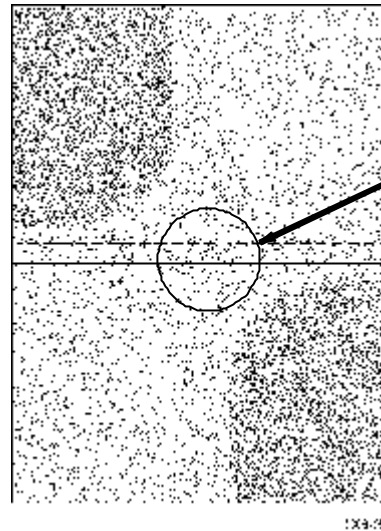
Clean all exterior surfaces prior to applying pavement graphics.

1. Scrape off any grease, gum, weeds or grass found in expansion joints or other large particles from the application surface. Complete degreasing may not be possible.
2. Clean the surface with a broom or a brush to remove all loose particles, dust, sand and gravel.

Seaming

A pavement graphic can be seamed, but it must have an overlap of at least 10 mm (3/8 inch). We recommend overlapping panels in the shortest direction, when possible.

Multiple layers of film can cause bumps. Make sure there are no more than three layers of film at any intersection. To do this, stagger seams, by at least 20mm (3/4 inch). (See Figure 2)



Make sure there are no more than three layers of film at any intersection. Stagger seams on overlapped panels

Figure 2. Stagger Seams on Overlapped Panels

Graphic Application

Note: If possible, radius the corners of the pavement graphic; this helps prevent premature lifting.

1. The application surface must be clean and completely dry.
2. The application surface temperature is at least +10°C (50°F).
3. This graphic type does not require an application tape.
4. Position the graphic on the clean surface.
 - Expansion joints can be used to align the graphic, but always position the graphic so none of its edges start or end on an expansion joint.
 - Bridge the film over grouting, seams, stone edges and expansion joints. DO NOT push the graphics into those areas.
5. Peel back one edge of the liner to expose the adhesive and apply that edge to the substrate, this will act as a “hinge”.

Note: Do not smooth the graphics with your hands because this entraps air.

6. Using firm pressure on the plastic application and overlapping strokes to adhere the graphic to the surface. Lift the opposite end of the graphic from the hinge and, while keeping the graphic raised up, peel back about 30cm more liner. Adhere that part of the graphic. Continue in this manner, working outward from the centre of the lifted graphic and using firm overlapping strokes until the graphic is completed applied.
7. **Resqueegeing the edges and corners** of the graphic, using very firm pressure; this ensures a good edge seal.

Maintenance and Cleaning

Caution

To reduce the risk of tripping, remove and replace the entire Scotchprint® Graphics for Pavements if there is any lifting from the pedestrian surface.

Caution

Before handling any chemical products, always read the container label and the MSDS.

- Pavement Graphics should be mopped or brushed periodically for optimum skid resistance and appearance.
- The structured surface of the overlamine may pick up dirt. To clean the graphic, use a stiff, nylon-bristled brush or a light duty automatic cleaner and a cleaning agent such as normal household cleaner. Follow the manufacturer's instructions for use. Do not use any cleaning agent that contains solvents, which can erode the sign material. For best results and very easy cleaning, use a solution of 3M™ Film Cleaner and water.
- An eraser gum can often remove black heel marks from the graphic.
- **Never** pressure wash pavement graphics. Doing so forces water under the graphic, causing the edges to lift and curl.
- If a pavement graphic containing an overlap has shrunk, revealing some of the adhesive, it may be cleaned by spraying the exposed adhesive with 3M™ Industrial Cleaner. Allow the cleaner to sit for one minute, and then wipe the surface with a rag or use a stiff, nylon-bristled brush to clean the surface and remove any adhesive.

Removal

1. Remove pavement graphics by lifting one edge and pulling it off at a sharp angle-about 135 degrees-with smooth, even tension. A scraper, such as a putty knife, may be used to lift the edge, if needed.

Some adhesive residue may remain on typical outdoor surfaces.
2. Pavement graphics applied to a smooth, sealed surface can be difficult to remove. Usually, it is easier to remove the graphic during the coolest part of the day. It may also be helpful to cut the graphic into strips about 5cm (2") wide and then pull off each strip. Use a razor blade with a safety handle.

Note: Because the area under the graphic initially will be cleaner than the surrounding surfaces, you may notice a shadow of where the graphic was placed. This is normal.

3M Related Literature

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

Subject	Bulletin No.
Product Bulletins	
3M™ Scotchcal™ Overlamine Film 3647	3647
3M™ Scotchcal™ Film 3662-10	3662-10
3M™ Scotchcal™ Electrostatic Protective Overlamine 8947 (ES)	8947
3M™ Scotchcal™ Electrostatic Film 8662-10 (ES)	8662-10
Instruction Bulletins	
Storage, Handling, Maintenance, Removal	6.5

Health & Safety

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.

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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