



# Application and Maintenance For Floor Graphics

## General Information

This Bulletin gives specific instructions for the application and maintenance of floor graphics created with these films.

### Screen Printing

- 3M™ Controltac™ Plus Graphic Film Series 162 and 3M™ Scotchcal™ Luster Overlamine 3645
- 3M™ Controltac™ Plus Graphic Film 164 and 3M™ Scotchcal™ High Gloss Overlamine 3648

### Electrostatic Imaging

- 3M™ Controltac™ Plus Graphic Film Series 8660 ES and 3M™ Scotchcal™ Luster Overlamine 8945 ES

### Piezo Ink Jet Printing

- 3M™ Controltac™ Plus Graphic Film RG162-10 and 3M™ Scotchcal™ Luster Overlamine 3645
- 3M™ Controltac™ Plus Graphic Film IJ162-10 and IJ162-114 and 3M™ Scotchcal™ Luster Overlamine 3645

## 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:

- By fax, call 1-800-364-0768 in the US and Canada or 1-650-556-8417 for all other locations.
- Electronically, visit us at <http://www.3M.com/MSDS>.
- By mail, or in case of an emergency, call 1-800-364-3577 or 1-651-737-6501.

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

## Application Surfaces

### Warranted Application Surfaces

#### Warning

The safety and performance of these films are warranted or assured only on the surfaces listed below. Any other surface must be approved in writing by 3M Commercial Graphics Technical Service prior to application.

FOR INDOOR USE ONLY.

Floor Graphics have been approved for application to the following floor surfaces.

- Waxed vinyl
- Sealed concrete
- Marble
- Ceramic tile
- Sealed wood
- Terrazzo

### Condition of Floor Surfaces

The floor surface must be secure and in good condition.

- Avoid installing floor graphics over loose tile.
- Avoid installing floor graphics over uneven tile.
- Be sure the floor finish is well bonded to the floor surface. Floor finishes that are not well bonded to the surface may separate or release, resulting in premature lifting of the graphic. In addition, the floor finish may come off with the graphic when the graphic is removed, requiring the reapplication of the floor finish. Some types of floor finishes include concrete sealer, wood sealer, paint, and wax.
- Properly clean the floor surface, including removing any silicone coatings, except in grout line area of tile.
- The floor surface application temperature range is 50° to 100°F (10° to 38°C).

## Location of Floor Graphics



### Caution

Any floor surface, including floor graphics, that is wet due to rain, snow, or other contaminants may become slippery. To avoid personal injury due to slipping:

- Place floor graphics far enough away from entryways that they stay dry.
- Use doormats to reduce moisture at entryways.
- Clean up water, spills, or other contaminants immediately.

3M™ Floor Graphics may be damaged by pallets or heavy equipment such as fork-lifts as well as by dragging heavy items across the top of the graphic. If possible, locate floor graphics out of the main stream flow of pallet or heavy equipment traffic. Minor edge chipping is unavoidable.

## Surface Preparation

All floor surfaces must be cleaned prior to applying floor graphics, including surfaces that are sealed, waxed or painted.

To clean the floor, use the system kit #75-5100-1138-2 for floor graphics. If this kit is not available, or if the graphic is very large or the floor is very dirty, use the following procedure.

### Surface Cleaning

1. Spray the floor area where the graphic will be applied. Use a solution of 20 drops of detergent per pint (400 ml) of water. Do not use soaps or enzyme detergents.
2. Clean an area that is 6 to 8 inches (15 to 20 cm) larger than the graphic.
3. Wipe the floor clean and then dry it with a lint-free paper towel, such as 3M™ Perfect-it™ Wipe, Kaydry Excel 6009, or the equivalent. Be sure you remove all soil and grit.
4. Remove any oil or grease by wiping the floor with a clean, lint-free paper towel that has been moistened with rubbing alcohol that contains no lotions. To avoid leaving a residue, wipe the surface completely dry with a lint-free paper towel before the alcohol evaporates.

## Seaming

Use butt seams when the graphic has more than one panel. Overlapped seams are not recommended or warranted.

## Cutting

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

The following are common cutting methods for film series 162. See Instruction Bulletin 4.1 for details.

- Bandsawing
- Hot kiss cutting
- Drum-type electronic cutting
- Flat-bed electronic cutting
- Guillotine
- Hand cut
- Cold and hot steel-rule die cutting

## Graphic Application

### General Application Technique

- Use a blue 3M™ Applicator PA-1
- Use firm pressure and overlapping strokes.
- Always stroke across the shortest, edge-to-edge distance.

### Application Procedure

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

1. This graphic is positionable and does not require a premasking or prespacing tape.
2. Position the graphic on the clean floor.
  - Avoid aligning the edges of the graphic on grout lines of tile.
  - Do not smooth the graphics with your hands because this entraps air.
3. Peel back one half of the liner to expose the adhesive. Carefully cut off that part of the liner while holding the graphic away from the surface.
4. Make one stroke across the center of the graphic.
5. Continue stroking edge-to-edge across the shortest distance until that half of the graphic is applied.
6. Lift the other end of the graphic and remove the remaining liner.
7. Continue stroking edge-to-edge across the shortest distance until that half of the graphic is applied.

### Finishing the Application

The application is not finished until you **re-squeegee the edges and the corners**. This ensures a good edge seal.

Using the applicator, re-squeegee the outer 4 to 6 inches all around the graphic, using firm, overlapping strokes. This works the adhesive into the application surface to provide better bonding.

## Maintenance and Cleaning

### Caution

To reduce the risk of tripping, remove and replace the entire graphic if there is any lifting from the floor surface.

### Air Quality Regulations

State Volatile Organic Compound (VOC) regulations may prohibit the use of certain cleaning solutions. For example, the California South Coast Air Quality Management District prohibits use of certain solvent-based solutions without a permit and other California AQMD's prohibit use of certain solutions without a permit or a regulatory exemption. You should check with your State environmental authorities to determine whether use of this solution is restricted or prohibited.

### Wax the Graphic Soon After Application

If you apply the graphic to a floor that is routinely maintained using buffing or scrubbing equipment, wax the graphic as soon as possible after applying it to the floor. This protects the graphic from premature wear due to routine floor maintenance. Following the application and waxing, if used, keep the graphic and surrounding floor surface clean and dry for at least four hours; do not scrub or buff the area during that time.

### Routine Maintenance

Use routine floor maintenance procedures and equipment to maintain the graphic.

1. Select a floor finish or wax that meets or exceeds the 0.5 Static Coefficient of Friction value using the ASTM D 2047 test procedure.
2. Clean the graphic prior to waxing it.
3. Follow the manufacturers' recommendations for applying the floor finish or wax.
4. Do not use buffing equipment over graphics unless they are waxed regularly.

If high-speed, propane-type buffers are used, we recommend that you apply four to six coats of wax to the graphic before buffing it. The multiple coatings of wax reduce the chance of the edge of the graphic wearing prematurely during buffing.

### Removal

1. Remove the graphic by lifting one edge and pulling it off at a sharp angle with smooth, even tension. A scraper, such as a putty knife, may be used to lift the edge, if needed.
2. The floor wax under the graphic may also be removed in this process; therefore, the area may have to be rewaxed.

## Warranty and Limited Remedy

The information contained and techniques described herein are believed to be reliable, but 3M makes no warranties, express or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose. 3M shall not be liable for any loss or damages, whether direct, indirect, special, incidental or consequential, in any way related to the techniques or information described herein.

## 3M Related Literature

**Before starting any job, be sure you have the most recent product and instruction bulletins.**

Listed below is related 3M technical literature that may be of interest. You may view and print these Bulletins from our Web site at [www.scotchprint.com](http://www.scotchprint.com), or order them via our Fax-on-Demand (FOD) system. Call one of these phone numbers to order the desired bulletins, and specify the FOD document number provided in the chart.

United States or Canada: 1-800-364-0768  
International: 1-651-732-6506

Subject	Bulletin No.	FOD No.
<b>Product Bulletins</b>		
3M™ Controltac™ Plus Graphic Film Series 162	162	1004
3M™ Controltac™ Plus Graphic Film IJ160-30	IJ160-10	4567
3M™ Controltac™ Plus Graphic Film RG162-10	RG162-10	4523
3M™ Controltac™ Plus Graphic Film 164	164	1011
3M™ Scotchcal™ Luster Overlamine 3645	3645	1508
3M™ Scotchcal™ Luster Overlamine 3648	3648	1524
3M™ Controltac™ Plus Graphic Film Series 8660 ES	8660	3512
3M™ Scotchcal™ High Gloss Overlamine 8945 ES	8945	3515
<b>Instruction Bulletins</b>		
Application/maintenance for floor graphics	5.26	7026

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### Bulletin Change Summary

Added section on cutting. Add information about volatile organic compounds in cleaning solutions.



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