



# Scotchcal™ Graphic Film for Textured Surfaces IJ8624

## For Solvent-based Piezo Inkjet Printing Only

### Description

Film IJ8624 is a removable graphic film designed for solvent-based piezo inkjet printing. When heated and applied with 3M's applicator tools and techniques, this film conforms to moderately textured surfaces on both flat and curved substrates, including concrete block, brick, industrial stucco and tile similar to those commonly found in sports arena, stadiums, restaurants, retail and other public venues.

### Graphic Protection

Graphic protection is required. It prevents abrasion and adds stiffness that makes some applications easier. Using an overlamine generally improves removal characteristics. We recommend using 3M™ Scotchcal™ Luster Overlamine 8524 for the best results.

### Recommended Types of Graphics and End Uses

All end use recommendations are based on the graphics manufacturer and/or installer testing and approving each unique application surface. The 3M Basic Product Warranty is offered for the film.

Graphics applied to indoor or outdoor textured surfaces. See Expected Durability on page 2.

### Unsuitable End Uses for This Film

- Application to the following is not recommended:
  - Outdoor applications in hot, sunny locations
  - Outdoor surfaces exposed to freeze and thaw temperatures
  - Any type of wallboard or wallpaper
  - Mortar joints deeper or higher than 3,1mm and square-cut or undercut mortar joints
  - Smooth surfaces; please contact your 3M sales representative to identify films for other types of surfaces that can be used in adjacent areas
  - Windows
  - Applications that require removal without risk of damage to the substrate or its finish, such as paint

Note: Be aware that graphics installed outdoors can develop mold or mildew on top of or behind the graphic, which may be a health concern for some individuals, especially during graphic removal.

### Characteristics

All values given are typical for unprocessed film unless noted otherwise and are not for use in specifications. Processing film may change certain values. If you have questions about your construction, contact the 3M Technical Service or your sales representative.

### Physical Characteristics

Characteristic	Description
Material	Vinyl
Color	White
Thickness	<b>Without adhesive:</b> 0.05 mm <b>With adhesive:</b> 0.08 to 0.10 mm
Adhesive type	Pressure sensitive
Adhesive color	Gray pigmented for excellent hiding power
Liner	Layflat polyethylene coated paper
Adhesion (24 hours after application)	Adhesion depends on the substrate material, texture and application technique. See Test Procedure on page 2
Chemical resistance	Resists mild alkalis, mild acids, and salt Excellent resistance to water (this does not include immersion)
Flammability	B1 certified

## Application Characteristics

Characteristic	Description
Finished graphic application recommendation	<b>Application surfaces:</b> Moderately-textured surfaces such as concrete block, brick, industrial stucco and tile, as found on flat walls and/or simple curved architectural elements such as columns. See Instruction Bulletin 5.37 for details. <b>Substrate temperature:</b> 4° to 38°C
Applied film shrinkage	0.4 mm
Graphic removal	Varies with type of substrate; using heat enhances removal of film; may leave adhesive residue, may remove some surface paint or finish, may damage mortar

## Warranty Information

This product has been tested and is believed to be a good product when used as recommended in this bulletin. The film is covered by the 3M Basic Product Warranty and is guaranteed to be free of physical and manufacturing defects. There is no warranty for printability, visual appearance, fitness for use or durability. See the 3M Graphic Market Center Warranty for the complete warranty and remedy details.

### Expected durability and removal with/without overlaminate 8524:

- up to 2 years indoors
- up to 6 months outdoors

3M recommends that graphic manufacturers test this film to ensure the film provides satisfactory printing, cutting, adhesion and removal characteristics for the intended end uses.

## Warranty and Limited Remedy

The following is made in lieu of all other express or implied warranties, including any implied warranty of **merchantability** or fitness for a particular purpose or implied warranty arising out of a course of dealing, custom or usage of trade: all 3M products are warranted to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in this Product Bulletin. 3M will replace or refund the price of any 3M materials that do not meet this warranty within the specified time periods. These remedies are exclusive.

## Fabrication

Refer to the Product and Instruction Bulletins for the ink series you are using.

When printed with solvent-based piezo inkjet ink, you can expect similar printing results to 3M™ ControItac™ Graphic Film IJ180.

## Application

Application of this film requires the use of high heat, 3M's textured surface applicator tools and unique application techniques.

To support your training, comprehensive application techniques are available in the most current version of Instruction Bulletin 5.37.

## Summary of Tips for the Most Successful Textured Wall Applications

On textured surfaces, the film and adhesive must conform to irregular high and low spots, which often includes mortar joints. This film is designed to be effective on many of the most common moderate textures found in public stadiums, arenas and similar environments. However, due to the wide variation in substrate texture, we encourage you to verify that the film and 3M techniques described in this Bulletin and Instruction Bulletin 5.37 are suitable for each of your applications.

- Use an installer trained in 3M's techniques and with access to the required 3M tools.
- Test each different textured surface you are considering at each location. See the instructions on the next page.
- Film is more susceptible to lifting from deep or undercut mortar joints than shallow ones (about 1/8" deep). Instruction Bulletin 5.37 discusses the various types of mortar joints.
- In most cases, minor lifting does not detract from the impact of your customer's message, nor from the overall durability of the graphic. Edge lifting, which is usually most noticeable at mortar joints, may be susceptible to picking and tearing if the graphic is at pedestrian level and within reach.
- Using overlaminate 8524 in the graphic construction may make removal easier.
- Avoid extremes in temperatures.
  - Freeze/thaw cycles that trap moisture behind graphics can cause lifting.
  - Water may accumulate behind graphics applied to unsealed substrates, resulting in water bubbles that cause lifting.
  - Intense direct sunlight may cause lifting.

## Test Application Instructions

### Tools

3M testing shows that the following test, which uses a small piece of film, is adequate for judging good adhesion to and appearance on textured surfaces. One of the following applicator tools will be needed for this test.

- 3M™ Textured Surface Applicator TSA-1

Note: Do not attempt this test using a standard squeegee. You will not be successful.

Note: Some uses of this tool are described and claimed in 3M Patents and pending Patent applications.

- Industrial heat gun with an electronic readout, capable of achieving and sustaining 537°C. See Instruction Bulletin 5.37 for examples of suitable guns.
- Approximately 1 square foot of film IJ8624. The marketing sheet you may have received from your sales representative is made from film IJ8624 and may be used. Five yard rolls of film IJ8624 are also available.
- Heat and burn-resistant gloves

### Substrate Preparation

Pre-cast concrete material can have an oily surface and be speckled with dust because of the production process. These characteristics inhibit good adhesion.

If you have poor adhesion, use TSP (tri-sodium phosphate) and water according to the manufacturer's instructions, or use 3M™ All Purpose Cleaner and Degreaser, diluted as recommended. Scrub the surface with a brush. Vacuum with a wet-dry vacuum, and then allow to dry until it both looks and feels dry to the touch.

### Shelf Life, Storage and Shipping

Activity	Recommendation
Shelf life	<b>Total shelf life: 2 years</b> Up to 2 years unprocessed, <b>OR</b> process within 1 year <b>and</b> apply within 1 year of processing
Storage conditions	<ul style="list-style-type: none"> <li>• 100°F (38°C) maximum; do not freeze</li> <li>• Out of sunlight</li> <li>• Clean dry area</li> <li>• Original container</li> </ul>
Shipping finished graphics	Be sure graphics are fully dried before rolling  Ship flat or rolled printed side out. Graphics with an overlaminate should be rolled on a 6 inch (16 cm) or larger core; un laminated graphics may be rolled on a 3 inch (8 cm) core.

See Instruction Bulletin 6.5 for details.

### Health and Safety

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

### Related 3M Literature

Before starting any job, be sure you have the most current Product and Instruction Bulletins.

Listed below is related 3M Technical Literature that may be of interest.

- 3M™ Scotchcal™ Luster Overlaminate 8524 (8524)
- Application Instructions (4.1; 4.3; 5.1; 5.2; 5.5)
- Design of Graphics (2.1)
- Cleaning, maintenance and removal (6.5)
- Guide to Understanding and Applying Graphics to Common Wall Surfaces (5.37)

### 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.

### For Further Assistance

For help on specific questions relating 3M Commercial Graphics Division products, contact your local 3M Technical Service representative or

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