

IJ8624

For Piezo Inkjet Printing

Product Description

These are 2-mil removable graphic films designed for piezo inkjet printing. When heated and applied with 3M's application tools and techniques, this film conform to moderately textured surfaces on both flat and curved substrates, including concrete block, brick, industrial stucco and tile similar to those surfaces commonly found in sports arena, stadiums, restaurants, retail and other public venues.

Product Features

- Pressure sensitive adhesive
- Resists mild alkalis, mild acids, and salt
- Excellent resistance to water (this does not include immersion)
- IJ8624 is a durable, high performance cast film with excellent imaging capability. To ensure that this film meets your specific needs, 3M recommends that graphic manufacturers test this film for satisfactory printing, cutting, adhesion and removal characteristics for the intended end uses. This information does not imply a warranted durability period.
- Expected Performance Life of 7 years (unwarranted period for unprinted film with no graphic protection, applied to a flat, vertical, outdoor surface)
- Expected Performance Life for Textured Surface Graphics of 2 years (indoor in most applications); and 6-12 months (outdoor when not used in freezing and thawing cycles). See "Factors that Affect Graphic Performance Life" on page 4.

When constructed and used as described in this Bulletin, these types of graphics and end uses are covered by 3M's Basic Product Warranty. Please read the entire Bulletin for details.

- Graphics applied to indoor or outdoor moderately textured surfaces. See Application Characteristics on page 2 for details.

CAUTION

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.

Recommended Compatible Products

See 3Mgraphics.com/warranties for a complete list of compatible products that are approved by 3M for use with the base film covered in this Bulletin and used for the creation of a graphic that may be eligible for the 3M™ MCS™ Warranty or 3M Performance Guarantee.

Piezo Inkjet Printing

- Any piezo inkjet ink or printer (test and approve)
- [3M™ Scotchcal™ Luster Overlamine 8524](#)

OEM Inkjet Inks and Printers for the 3M Performance Guarantee

See the [3M Performance Guarantee Matrix](#) for a complete list of compatible OEM Inkjet Inks and Printers that are approved by 3M for use with the base film covered in the Bulletin and used for the creation of a graphic that may be eligible for the 3M Performance Guarantee.

Quick Links

- [3M Graphics Warranties](#)
- [Technical Information Selector](#)
- [Safety Data Sheets \(SDS\)](#)
- [Flammability \(ASTM E84 Reports\)](#)
- [Videos](#)

Some of these links lead to web-based resources that are not product-specific.

Graphic Protection

Graphic protection may improve the appearance, performance and durability of the graphic. Click on the graphic protection options listed in Product Bulletin or see the [3M Graphics Market Product Catalog](#), for more information.

IMPORTANT NOTE

During installation, scratches may occur on films without graphic protection.

- [3M™ Scotchcal™ Luster Overlamine 8524](#)
- [3M™ Envision™ Luster Wrap Overlamine 8549L](#)
- [3M™ Envision™ Gloss Wrap Overlamine 8548G](#)

Application Tapes

There are two types of application tapes. See [3M Instruction Bulletin AT-1](#) to determine what application tape is recommended for your film or finished graphic.

Premasking Tape

Increases stiffness during application while preventing stretching and damage. Use when little or no liner is exposed. See [3M Instruction Bulletin 4.3](#) for complete details.

Prespacing Tape

Holds cut and weeded letters or graphics in place during application and after removing the film liner, while preventing stretching and damage. Use when large amounts of liner are exposed. See [3M Instruction Bulletin 4.3](#) for complete details.

Other Products

- [3M™ Edge Sealer 3950](#)
- [3M™ Edge Sealer Tape 8914](#)
- [3M™ Vehicle Channel Applicator Tool VCAT-2](#)

Certificate of 3M™ MCS™ Warranty

Graphic manufacturers who produce digitally printed graphics made with all 3M Graphics Products, including 3M Ink purchased through a qualified 3M Distributor or 3M Printing Partner, may register to be recognized with a Certificate of 3M™ MCS™ Warranty. Only graphic manufacturers having a current Certificate of 3M™ MCS™ Warranty are eligible to extend this warranty to their customers.

NOTE: For non-digitally printed Finished Graphics, check your eligibility for the 3M™ MCS™ Warranty by viewing the Warranty Period found within the Product Bulletin or using the warranty selector at www.3mgraphics.com/warranties.

Characteristics

These are typical values for unprocessed product. Processing may change the values.

Physical Characteristics

Characteristic	Value
Material	Vinyl
Film Color	White
Thickness	Without adhesive: 2 mils (0.05 mm) With adhesive: 3 to 4 mils (0.08 to 0.10 mm)
Adhesive	Pressure sensitive
Adhesive Color	Gray pigmented for excellent hiding power
Liner	Layflat polyethylene coated paper
Adhesion, Typical 24 hours after application	Adhesion depends on the substrate material texture and application technique. See Test Procedure.
Chemical Resistance	Resists mild alkalis, mild acids and salt. Excellent resistance to water (this does not include immersion)
Flammability	Call 1-800-328-3908 for information

Application Characteristics

Characteristic	Value
Finished Graphic Application Recommendation	Application surfaces: 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. Substrate temperature: 40 ° to 100 °F (4 ° to 38 °C)
Applied Shrinkage	0.015 inches (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

IMPORTANT NOTE

Warranty information including limitations and exceptions and warranty periods for this product can be found at 3MGraphics.com/warranties.

3M Basic Product Warranty

3M Graphics Products are warranted to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in its applicable 3M Graphics Product Bulletin and as further set forth in the [3M Graphics Warranties Bulletin](#).

Limited Remedy

The limited remedy applicable to each warranty is addressed in the 3M Graphics Warranties Bulletin found at 3MGraphics.com/warranties.

Limitation of Liability

Except to the extent prohibited by law, 3M SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO PURCHASER OR USER FOR ANY DIRECT (EXCEPT FOR THE LIMITED REMEDY PROVIDED HEREIN), INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LABOR, NON-3M MATERIAL CHARGES, LOSS OF PROFITS, REVENUE, BUSINESS, OPPORTUNITY, OR GOODWILL) RESULTING FROM OR IN ANY WAY RELATED TO 3M'S GRAPHICS PRODUCTS, SERVICES, OR THIS BULLETIN. This limitation of liability applies regardless of the legal or equitable theory under which such losses or damages are sought.

Additional Limitations

See the 3M Graphics Warranties Bulletin at 3MGraphics.com/warranties, for terms, additional limitations of your warranty, if any, information on reduced warranties for different exposures, and limitations of liability.

Factors that Affect Graphic Performance Life

The actual performance life of a graphic is affected by:

- the combinations of graphics materials used.
- complete ink drying or curing.
- selection, condition and preparation of the substrate.
- surface texture.
- application methods.
- angle and direction of sun exposure.
- environmental conditions.
- cleaning or maintenance methods.

Graphics Manufacturing



Before using any equipment, always read the manufacturer's instructions for safe operation.

Piezo Inkjet Printing

When printed with piezo inkjet ink, you can expect similar printing results to 3M™ Controltac™ Graphic Film IJ180. Refer to the ink manufacturer's Product and Instruction Bulletins for printing details.

Total Ink Coverage

The maximum recommended total ink coverage for this film is:

- **270%** when printed with all approved 3M solvent inkjet inks.
- **280%** when printed with all approved 3M UV inkjet inks.
- **280%** when printed with all approved 3M latex inkjet inks.
- **250%** when printed on the Mimaki JV5 Series printer with HS ink series ([3M Performance Guarantee](#)).

Do not exceed the recommended total ink coverage for the ink series used on this product. Having too high a total physical ink amount on the product results in media characteristic changes, incomplete drying, overlamine lifting, and/or poor graphic performance. For additional details about total ink coverage, refer to the 3M Product and Instruction Bulletin for 3M inks or the [3M Performance Guarantee Matrix](#) for OEM inks.

Completely Dry Graphics



Incomplete drying or curing can result in graphic failure including curling, increased shrinkage and adhesion failure, which are not covered under any 3M Graphic Warranty.

See the ink's 3M Product and Instruction Bulletin for more details.

Cutting

See [3M Instruction Bulletin 4.1](#) for Sheeting, Scoring and Film Cutting details.

Application and Installation

In addition to other 3M Bulletins specified in this document, the following Bulletins provide details that you may need to successfully apply a graphic.

- [3M Instruction Bulletin 5.37](#) A Guide to Understanding and Applying Graphics to Common Smooth and Textured Wall Surfaces
- [3M Instruction Bulletin 5.5](#) Application, General Procedures for Interior and Exterior Dry Application

IMPORTANT NOTE

Application of this film requires the use of high heat, 3M's textured surface applicator tools and unique application techniques. To help ensure a successful application, please view the 3M DVD, Textured Walls Application, or arrange for a training class. Contact your local 3M sales representative to assist you with either of these options.

Salt passing through masonry may become trapped behind films. Salt collection on the masonry surface for extended periods of time may cause staining or discoloration.

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 Product and Instruction Bulletin V-Tools](#). 3M™ Vehicle Channel Applicator Tools.
- 3M™ Textured Surface Applicator TSA-1
- 3M™ Textured Surface Applicator TSA-2
- 3M™ Textured Surface Applicator TSA-3
- 3M™ Textured Surface Applicator TSA-4

NOTE: Do not attempt application using a standard squeegee.

IMPORTANT NOTE

UV inkjet inks may crack if too much heat is used during graphic application to complex curves and deep contours as well as around rivets. When using heat during application, make sure the film surface temperature does not exceed 212° F (100° C). For best results, **always do a test application** of a printed graphic to determine how much heat can be used without damaging the image.

IMPORTANT NOTE

3M recommends using additional heat in the post-application process for vehicle graphics. During this process, 3M only recommends using a heat gun to make sure the film surface temperature reaches a minimum of 200° F (93° C) and does not exceed 225° F (107° C), or the lowest specified maximum temperature for any other component.

IMPORTANT NOTE

For textured walls, 3M only recommends using a heat gun with appropriate application tools to apply the film to the textured surfaces.

3M™ Tape Primer 94

3M recommends that where the film will be stretched, particularly on the edges of the film, use primer to maximize a graphic's bond to its substrate.

Maintenance and Cleaning

Use a cleaner designed for high-quality painted surfaces. The cleaner must be wet, non-abrasive, without solvents, and have a pH value between 3 and 11 (neither strongly acidic nor strongly alkaline). See [3M Instruction Bulletin 6.5](#) for details.

Removal

Removal requires heat and/or chemicals. 3M makes no claims as to the ease or speed of removal. This product may not remove similarly to other products in the same category. See [3M Instruction Bulletin 6.5](#) for details.

NOTE: Using overlaminates 8524, 8548G, 8549L in piezo inkjet graphic construction may make removal easier.

Shelf Life, Storage and Shipping

Shelf Life

The shelf life is **never more than 3 years** from the date of manufacture on the original box.

If you process the film, the shelf life is changed to **1 year** from the processing date, but not later than the 3 year maximum from the manufacturing date.

Storage Conditions

- 40° to 100 °F (4° to 38 °C)
- Out of sunlight
- Clean, dry area
- Original container
- Bring the film to room temperature before use

Shipping Finished Graphics

Flat, or rolled printed side out on 6 inch (15 cm) or larger core. This helps prevent the application tape, if used, from popping off.

Health and Safety

CAUTION

When handling any chemical products, read the manufacturer's container labels and the Safety Data Sheets (SDS) for important health, safety and environmental information. To obtain SDS sheets for 3M products go to 3M.com/SDS, or 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 manufacturer's instructions for safe operation.

Commercial Solutions

3M Center, Building 220-12E-04
St. Paul, MN 55144

1-800-328-3908
3M.com/Graphics

© 3M 2017. All rights reserved.

3M, Scotchcal, and MCS are trademarks of 3M. Used under license in Canada.

All other trademarks are property of their respective owners.

Revision E, September 2017 Please recycle.

