3M Graphics Warranties

<u>Technical Information Selector</u> Safety Data Sheets (SDS)

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

Quick Links

Videos

IJ56C-10UR IJ56C-20UR

Product Description

- 3-mil calendared vinyl film
- Pressure-sensitive adhesive
- Ultra-removable
- The user is responsible for determining the product's suitability for compatibility on latex, UV, and solvent inks for their intended use.
 - This product should be used on a test-and-approve basis.

Product Features

- Available in gloss (-10) or matte (-20) finishes
- Pressure-sensitive, ultra-removable adhesive
- Air release channels for fast, easy, bubble-free installations
- Removable without heat or chemicals from most surfaces within the expected performance life
- Expected performance life of one year (unwarranted period for unprinted film with no graphic protection, applied to a flat, vertical, outdoor surface)

Recommended Types of Graphics and End Uses

- Short-term promotional graphics on transit vehicles or box trucks (including king and queen boards)
- External and internal temporary signage
- Tradeshow displays
- Billboard advertising
- Point-of-purchase displays

Recommended Compatible Products

Graphic Protection

- 3M[™] Scotchcal[™] Gloss Overlaminate 4156*
- 3M™ Scotchcal™ Matte Overlaminate 4157*
- 3M™ Scotchcal™ Gloss Overlaminate 8508
- 3M[™] Scotchcal[™] Luster Overlaminate 8509
- 3M™ Scotchcal™ Matte Overlaminate 8510
- 3M™ Envision™ Overlaminate 8048G
- 3M[™] Envision[™] Overlaminate 8050M
- * Not available in all regions. Check your local region for availability.

Other Products

- 3M™ Edge Sealer 3950
- 3M™ Edge Sealer Tape 8914





Characteristics

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

Physical Characteristics

Characteristic	Value	
Material	Calendered vinyl	
Film Color	White, opaque	
Thickness	Without adhesive: 3 mil (0.076 mm) With adhesive: 4-4.5 mil (0.10-0.11 mm)	
Adhesive	Pressure-sensitive with air-release channels	
Adhesive Color	Gray	
Liner	Polyethylene-coated paper	
Typical Adhesion 24 Hours After Application	Painted aluminum: 2-3 lbs/in. (0.36-0.53 kg/cm)	
Chemical Resistance	Resists mild alkalis and mild acids Excellent resistance to water (does not include immersion)	
Flammability	Refer to the online product catalog at <u>3M.com/graphics</u> or call 3M at 1-800-328-3908.	

Application Characteristics

Characteristic	Value
Finished Graphic Application Recommendation	Surface type: Flat, smooth, and simple curved surfaces Substrate type: Metal and painted substrates Application method: Dry Application temperature (air and substrate): 40°F to 100°F (4°C to 38°C)
Temperature Range After Application	-30°F to 200°F (-34°C to 93°C) (Though not for extended periods of time at the extremes.)
Graphic Removal	Removable without heat or chemicals from most surfaces within the expected performance life.

Factors Affecting Graphic Performance Life

The actual performance life of a graphic is affected by:

- The combination of graphic 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 and maintenance methods

Graphics Manufacturing



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

Inkjet Printing

Always read and follow the ink manufacturer's written instructions on usage.

Total Ink Coverage

The maximum recommended total ink coverage for this film is:

- 280% when printed entirely with approved 3M UV inkjet inks.
- 280% when printed entirely with approved 3M latex inkjet inks.
- 250% when printed entirely with approved 3M solvent inks.
 - A 3M approved overlaminate is required for all solvent printing applications on IJ56C films.

Do NOT exceed the recommended total ink coverage for this product. Having too much total physical ink on the product results in media characteristic changes, incomplete drying, overlaminate lifting, and/or poor graphic performance. For additional details about total ink coverage, refer to the 3M product and instruction bulletins for 3M inks.

Completely Dry Graphics



IMPORTANT NOTE

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

See the ink's 3M product and instruction bulletins for more details.

Cutting

See 3M Instruction Bulletin 4.1 for Sheeting, Scoring and Film Cutting details.

Graphic Protection

Graphic protection may improve the appearance, performance, and durability of the graphic. Click on the graphic protection options listed in this product bulletin for more information.



IMPORTANT NOTE

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

Application Tapes

There are two types of application tapes. See <u>3M Instruction Bulletin AT-1</u> to determine what application tape is recommended for your film or finished graphic.

Premasking Tape

Premasking tape increases stiffness during application while preventing stretching and damage. Use when little or no liner is exposed. See <u>3M Instruction Bulletin 4.3</u> for complete details.

Prespacing Tape

Prespacing tape holds cut and weeded letters or graphics in place during application and after removal of the film liner, while preventing stretching and damage. Use when large amounts of liner are exposed. See <u>3M Instruction Bulletin 4.3</u> for complete details.

Application and Installation

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

- 3M Instruction Bulletin 4.22 Lamination Basics for Inkjet Printed Graphics
- 3M Instruction Bulletin 5.1 Select and Prepare Substrates for Graphic Application
- 3M Instruction Bulletin 5.36 Application Techniques for Automobiles, Vans and Buses
 - Complete the 3M Pre-Installation Inspection Record found in 5.36 prior to manufacturing or applying a graphic to an automobile, van, or bus.
- 3M Instruction Bulletin 5.37 A Guide to Understanding and Applying Graphics to Common Smooth and Textured Wall Surfaces
- 3M Instruction Bulletin 5.4 Application: Fleet Trucks
- 3M Instruction Bulletin 5.5 Application, General Procedures for Interior and Exterior Dry Application
- 3M Instruction Bulletin 6.5 Storage, Handling, Maintenance and Removal of Films and Sheetings

3M[™] Tape Primer 94

3M recommends using primer where the film will be stretched, particularly on the edges of the film, 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 <u>3M Instruction Bulletin 6.5</u> for details.

Removal

The product is designed to be removable without the aid of heat or chemicals. However, 3M makes no claims as to the ease or speed of removal. See 3M Instruction Bulletin 6.5 for details.

Shelf Life, Storage, and Shipping

Shelf Life

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

Storage Conditions

- 40°F to 90°F (4°C to 32°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 a 6 in. (15 cm) or larger core. This helps prevent the application tape, if used, from popping off.

Health and Safety



When handling any chemical products, read the manufacturers' container labels and the Safety Data Sheets (SDS) for important health, safety, and environmental information. To obtain SDS for 3M products go to 3M.com/SDS. To request SDS by mail, or in case of an urgent situation, call 1-800-364-3577 or 1-651-737-6501.

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

Warranty Information

Warranty Coverage Overview

The warranty coverage for eligible graphics is based on the user both reading and following all applicable and current 3M Graphics product and instruction bulletins. The warranty period for eligible graphics is as stated in the 3M Graphics Warranties Matrices at the time the film was purchased. Information found at 3M.com/graphicswarranties includes:

- 3M Graphics Warranties Bulletin
 - This bulletin contains information on limitations, exceptions, and warranty period reductions for 3M Graphics warranties. The warranty period may be reduced and stipulations may apply for certain constructions, applications, and graphic exposures as covered in this bulletin.
- 3M Graphics Warranties Selector
 - Use this selector to search for your vertical warranty period by product type, ink type, film name, and/or ink/printer platform.
- U.S. Desert Southwest Region Map
 - Use this map of hot, arid desert areas to determine if you are subject to reduced warranted durabilities.

Technical Information

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Product Selection and Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment, reviewing all applicable regulations and standards, and reviewing the product label and use instructions. Failure to properly evaluate, select, and use a 3M product in accordance with instructions or to meet all applicable safety regulations may result in injury, sickness, death, and/or harm to property.

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