

Proposed Building Alteration

Graphic Vinyl Wall Wrap

Metro Motor Collision

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- Applicant Authorization Form
- Wastewater Discharge Questionnaire



White metal signs to be removed prior to install.

Wrapping white window frames



Front Wall
304" (W) X 105.5" (H)
180 Vinyl
8519 Luster Laminate
Quantity: 1

Exterior Office Wrap

Wrapping white window frames



Wiring. Wrap underneath



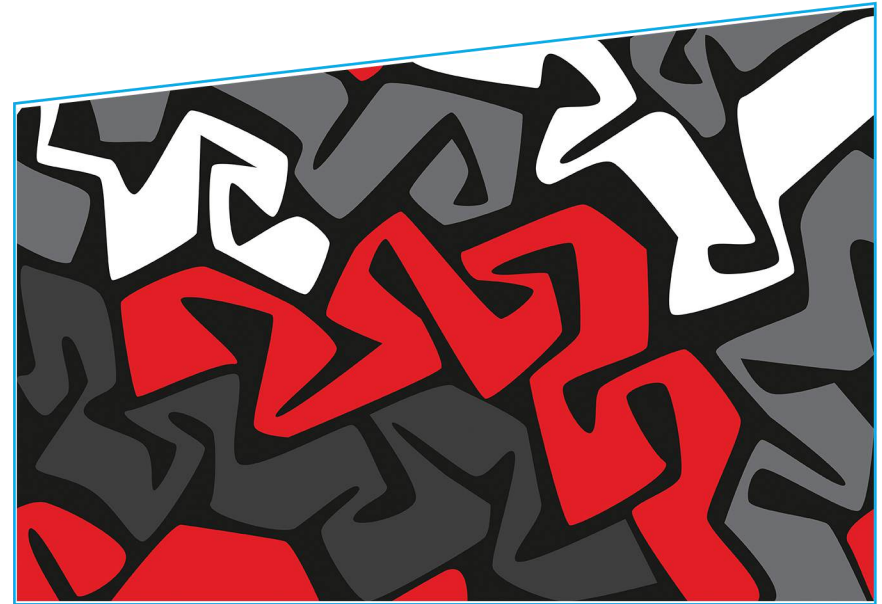
Left Wall

189" (W) X 132" (H)

180 Vinyl

8519 Luster Laminate

Quantity: 1



Right Wall

189" (W) X 132" (H)

180 Vinyl

8519 Luster Laminate

Quantity: 1

Exterior Office Windows



Windows - Front and Left sides

24" (W) X 34" (H)

View Thru

W/ Edge Sealer applied

Quantity: 6





Mock-up

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3M certified vinyl:

- 3M IJ180CV3 Controltac with Comply Graphic Film Vinyl
- 8519 Laminate

The vinyl will be heat-bonded to the structure, but is reversible/removable.

PANTONE® Color Codes

- WHITE
- BLACK
- RED: 711 C
- DARK GREY: 447 C
- LIGHT GREY: 424 C



PANTONE®
711 C



PANTONE®
PQ-447C



PANTONE®
424 C

No branding or text will appear on the vinyl – it is a color graphic only.

Product Description

- For Solvent, UV, and Latex Inkjet printing

Product Features

- Pressure-activated adhesive for easy sliding, tacking, snap-up and repositioning
- Excellent hiding power; flexible; conforms to compound curves, corrugations and rivets
- Many finished graphic constructions can be stretched up to 130% (i.e., a 10 inch [25 cm] piece of film can stretch to 13 inches [33 cm]) without primer or relief cuts and maintain lift resistance; see "Stretchability" on page 6
- Removable with heat
- IJ180mC-10UR:** Expected Performance Life of 8 years (unwarranted period for unprinted film with no graphic protection, applied to a flat, vertical, outdoor surface)
- All others:** Expected Performance Life of 10 years (unwarranted period for unprinted film with no graphic protection, applied to a flat, vertical, outdoor surface)

Quick Links

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

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

Product Name	Description	Features
3M™ Controltac™ Graphic Film IJ180-10	2-mil, white, vinyl film with a luster finish	The original film is optimal for trailer & box truck graphics
3M™ Controltac™ Graphic Film w/Comply™ Adhesive IJ180C-10	2-mil, white, vinyl film with a luster finish	The original film is optimal for trailer & box truck graphics using Comply™ Adhesive air release channels for fast, easy, bubble-free installations
3M™ Controltac™ Graphic Film w/Comply™ Adhesive v3 IJ180Cv3-10	2-mil, white, vinyl film with a luster finish	The industry go-to film is optimal for trailer & box truck graphics using Comply™ v3 Adhesive non-visible air release channels for fast, easy, bubble-free installations
3M™ Print Wrap Film IJ180mC-10	2-mil, white, vinyl film with a luster finish	The industry's go-to film is fine tuned for wraps using Comply™ Adhesive with micro technology non-visible air release channels for fast, easy, bubble-free installations
3M™ Print Wrap Film IJ180mC-114 "Transparent"	2-mil, clear, vinyl film with a luster finish	Printable clear wrap film with micro technology non-visible air release channels for fast, easy, bubble-free installations
3M™ Print Wrap Film IJ180mC-120 "Metallic"	2-mil, metallic silver, vinyl film with a luster finish	Printable metallic wrap film with micro technology non-visible air release channels for fast, easy, bubble-free installations
3M™ Print Wrap Film IJ180mC-10UR	2-mil, white, vinyl film with a luster finish with Ultra-Removable adhesive.	Ultra-Removable adhesive. Shorter term option. Fast, clean removal without heat or chemicals.

Recommended Types of Graphics and End Uses

- Wraps for vehicles, straight trucks, semi-trucks and semi-trailers; emblems or striping
 - Horizontal vehicle wraps when protected with 3M overlaminates 8528, 8548G, 8549L, or 8900
- Walls, indoor and outdoor graphics and signs, including point-of-purchase and displays
- Watercraft graphics (above the static water line only)
- Bus graphics
- Small format original equipment manufacturer's (OEM) decorative and identification graphics, cautionary and safety labeling
- IJ180mC-114 can be used for 2 way emblems on windows (excluding buses or other vehicles).

IMPORTANT NOTE

For all stainless steel applications, see [IJ180mC-10SLS product bulletin](#).

For all low-surface energy applications, see [IJ180mC-10LSE product bulletin](#).

When constructed and used as described in this Bulletin, these types of graphics and end uses may be warranted by the 3M™ MCS™ Warranty or the 3M Performance Guarantee. Please read the entire Bulletin for details.



3M™ Controltac™ Graphic Film

3M™ Print Wrap Film

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.

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.

Graphic Protection

- [3M™ Scotchcal™ Gloss Overlaminate 8518](#)
- [3M™ Scotchcal™ Luster Overlaminate 8519](#)
- [3M™ Scotchcal™ Matte Overlaminate 8520](#)
- [3M™ Scotchcal™ Gloss Overlaminate 8528](#) *with horizontal vehicle warranty*
- [3M™ Envision™ Gloss Wrap Overlaminate 8548G](#) *with horizontal vehicle warranty*
- [3M™ Envision™ Luster Wrap Overlaminate 8549L](#) *with horizontal vehicle warranty*
- [3M™ Scotchcal™ Ultra Matte Overlaminate 8915](#)
- [3M™ Screen Print Gloss Clear 1920DR](#)
- [3M™ Screen Print UV Gloss Clear 9740i](#)
- [3M™ Piezo Inkjet Protective Clear 8530](#)
- [3M™ Wrap Overlaminate Series 8900](#)
- [3M™ Décor Overlaminate 8600](#)

Application Tapes

See [3M Instruction Bulletin AT-1](#) to determine what application tape is recommend for your film or finished graphic.

Other Products

- [3M™ Edge Sealer 3950](#)
- [3M™ Edge Sealer Tape 8914](#)
- [3M™ Vehicle Channel Applicator Tool VCAT-2](#)
- [3M™ Roller S \(small hard roller\)](#)
- [3M™ Roller L \(large hard roller\)](#)
- [3M™ Scotchgard™ Paint Protection Film SGH6](#)

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.

3M™ Controltac™ Graphic Film

3M™ Print Wrap Film

Characteristics

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

Physical Characteristics

Characteristic	Value
Material	Cast vinyl
Film Color	Film IJ180, IJ180C, IJ180Cv3, IJ180mC-10, IJ180mC-10UR: White, opaque IJ180mC-120: Silver IJ180mC-114: Clear
Thickness	Without adhesive: 2 mil (0.05 mm) With adhesive: 3–4 mil (0.08–0.10 mm)
Adhesive	Film IJ180: Pressure-activated (slide, tack, snap-up, reposition) Films IJ180C, IJ180Cv3; IJ180mC (all versions): Pressure-activated (slide, tack, snap-up, reposition) with air release channels
Adhesive Color	Film IJ180, IJ180C, IJ180Cv3, IJ180mC-10, IJ180mC-10UR: Gray IJ180mC-120: Silver IJ180mC-114: Clear
Liner	Polyethylene-coated paper
Adhesion, Typical 24 hours after application	ABS: 4–5 pounds/inch (0.72–0.89 kg/cm) Acrylic enamel: 3–4 pounds/inch (0.54–0.72 kg/cm) Aluminum, anodized: 7–8 pounds/inch (1.26–1.43 kg/cm) Aluminum, etched: 5–6 pounds/inch (0.89–1.08 kg/cm) Chrome: 4–5 pounds/inch (0.72–0.89 kg/cm) Fruehauf pre-painted panels: 3–5 pounds/inch (0.54–0.89 kg/cm)
Tensile Strength	5 pounds/inch at 73 °F (0.9kg/cm at 23 °C)
Chemical Resistance	Resists mild alkalis, mild acids, and salt Excellent resistance to water (<i>does not include immersion</i>) Resists occasional fuel spills
Flammability	ASTM E84 reports: IJ180 , IJ180C , and IJ180Cv3 or go to the On-line Product Catalog at 3M.com/graphics All other test reports: call 1-800-328-3908

Application Characteristics

Characteristic	Value
Finished Graphic Application Recommendation	Surface type: flat, with and without rivets, simple curves, compound curves, and corrugations Substrate type: ABS resins, aluminum, chrome, glass, fiberglass reinforced plastics, paint (check adhesion to powder-coated or water-based paints), fiberglass with gel coat Application method: Dry Application temperature: air and substrate - Flat without rivets: 40–100 °F (4–38 °C) - Curves or corrugations with rivets: 50–100 °F (10–38 °C) - Compound curves and/or watercraft: 60–90 °F (16–32 °C)
Applied Shrinkage	0.015 inches (0.4 mm)
Temperature Range After Application	-65 to +225 °F (-60 to +107 °C) (not for extended periods of time at the extremes)
Graphic Removal	Removable with heat from most substrates within the Warranty Period at 50 °F (10 °C) minimum (air and substrate). 3M makes no claims as to the ease or speed of removal. IJ180mC-10UR is ultra-removable, and does not need heat to remove. See 3M Instruction Bulletin 6.5 for removal techniques.

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 that the film was purchased. Information found at [3MGraphics.com/warranties](https://www.3MGraphics.com/warranties) includes:

- [3M Graphics Warranties Bulletin](#)
 - This bulletin contains information on limitations and 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.

The warranties set forth in this Bulletin are made in lieu of all other express or implied warranties, including any implied warranty of merchantability, fitness for a particular purpose, or arising out of a course of dealing, custom, or usage of trade.

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](https://www.3MGraphics.com/warranties).

Limitation of Liability

Except where prohibited by law, 3M SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO PURCHASER OR USER FOR ANY DIRECT (EXCEPT FOR THE LIMITED REMEDY PROVIDED IN THE 3M GRAPHICS WARRANTIES BULLETIN), 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.

Warranty Period Matrices

See the 3M Graphics Warranties Matrices at [3MGraphics.com/warranties](https://www.3MGraphics.com/warranties), for vertical warranty period information specific to your film.

Warranty Period Matrices - Smooth, Interior Walls

Table A. Warranty Period (in years) for Finished Graphics Applied to Smooth, Indoor Walls Not Exposed to the Elements or in Direct Sunlight. See the 3M™ MCS™ Graphics Warranties Matrices at [3MGraphics.com/warranties](https://www.3M.com/graphics/warranties) for full list of compatible inks.

Film	Overlaminates	Inks		
		UV Inkjet Inks	Solvent Inkjet Inks	Latex Inkjet Inks
IJ180mC-10	8520; 8550M; 8600; 8915;	8	8	8

IMPORTANT NOTE

This warranty period does not include removability.

IMPORTANT NOTE

Warranty Period table above applies to the listed overlaminates used in conjunction with the films listed in the table and applicable Inkjet inks on smooth, indoor wall applications not exposed to the elements and not located in direct sunlight.

The Adhesion Test Kit must be used to test adhesion characteristics of smooth indoor walls before application in order to be eligible for the 3M™ MCS™ Warranty. See [3M Instruction Bulletin 5.37](#) for full details.

The 3M Smooth Interior Wall Installation Checklist (located at the end of this Bulletin) must be completed in order for the finished graphic to be eligible for the 3M™ MCS™ Warranty.

Additional Limitations

See the 3M Graphics Warranties Bulletin at [3MGraphics.com/warranties](https://www.3M.com/graphics/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.

Inkjet Printing

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

3M™ Controltac™ Graphic Film

3M™ Print Wrap Film

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

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 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.

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.

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.

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 2.1](#) Design of graphics.
- [3M Instruction Bulletin 4.22](#) Lamination Basics for Inkjet Printed Graphics.
- [3M Instruction Bulletin 5.36](#) Application Techniques for Automobiles, Vans and Buses. Complete the 3M Pre-Installation Inspection Record found in this Instruction Bulletin prior to manufacturing or applying a graphic to an automobile, van, or bus.
- [3M Instruction Bulletin 5.4](#) Application, Fleet Trucks.
- [3M Instruction Bulletin 5.42](#) Application, Special Considerations for Watercraft. Complete the 3M Pre-Installation Inspection Record found in this Instruction Bulletin prior to manufacturing or applying a graphic to a watercraft.
- [3M Instruction Bulletin 5.5](#) Application, General Procedures for Interior and Exterior Dry Application.
- [3M Product and Instruction Bulletin V-Tools](#) 3M™ Vehicle Channel Applicator Tools.

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).

IMPORTANT NOTE

IJ180mC-120 may exhibit a directional characteristic in its appearance. For the best overall appearance, do not alternate between lengthwise and widthwise graphic panels.

Pressure-activated Adhesive

The pressure activated adhesive on this film offers:

- smooth sliding into position on a substrate;
- fast finger tacking to check position; and
- easy snap-up and repositioning when you need it.

The snap-up and reposition feature is lost:

- when firm pressure with a squeegee or other application tool is applied.
- at application temperatures above 100° F (38° C) even if only light finger pressure was used for tacking.
- if any part of the film is removed from the original liner and reapplied to the same or another liner.
- solvent from inkjet ink has not completely dried or cured, which affects both slideability and snap-up.

Working with Air Release Channels

Air release channels are a characteristic of films with Comply™ adhesive that allow trapped air to exit through the edges of the graphic.

- The channels will be damaged and effective air removal affected if you remove and attempt to change liners or reapply the same liner.
- For the best results, always work from the center out to the edges of the graphic to allow trapped air to exit through the air release channels. If the channels are closed off by firm pressure and air is trapped, use an air release tool to aid in removing air bubbles. See [3M Instruction Bulletin 5.4](#) for details.
- The mC channels have slightly different characteristics than the other Comply™ channels like Cv3 and C. Working with mC channels may need a more consistent, firm pressure with overlapping strokes compared with other patterns.

Video

Click [here](#) to see how 3M's Comply™ adhesive technology works.

Click [here](#) to see a demonstration of film application and bubble removal.

Stretchability

Many finished graphic constructions can be stretched without primer or relief cuts and maintain lift resistance.

- For Automobiles, Vans and Buses, see [3M Instruction Bulletin 5.36](#) for details and exceptions.
- For Straight trucks, semi-trucks and semi-trailers, see [3M Instruction Bulletin 5.4](#) for details and exceptions.

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 general housekeeping such as the Scotch-Brite™ Easy Eraser or Simple Green® and then rinse with clear water. 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 may require heat. The ease and rate of removal depends on a number of factors. See [3M Instruction Bulletin 6.5](#) for details.

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.

3M™ Controltac™ Graphic Film

3M™ Print Wrap Film

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](https://www.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](https://www.3m.com/Graphics)

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Revision U, March 2020 Please recycle.



8518 Gloss Overlamine
8519 Luster Overlamine
8520 Matte Overlamine
8914 Optically Clear Overlamine
8915 Ultra-Matte Overlamine
8528 Gloss Overlamine

Quick Links

[3M Graphics Warranties](#)
[Technical Information Selector](#)
[Safety Data Sheets \(SDS\)](#)
[Videos](#)

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

Product Description

- 8518, 8519, 8520: resists fuel vapors, highly conformable
- 8518: provides a wet paint look
- 8914: optically clear, conformable, and primarily used to protect perforated window graphic films and prevent moisture and contaminants from collecting in the film's perforations
- 8915: Ultra-matte, reduces glare
- 8528: Excellent UV protection, longer term vertical durability, horizontal warranty
- 8518, 8519, 8520, 8914, 8915: Expected performance life of eight years (unwarranted period applied to a flat, vertical, outdoor surfaces)
- 8528: Expected performance life of nine years (unwarranted period applied to a flat, vertical, outdoor surfaces)

Recommended Types of Graphics and End Uses

- 8518, 8519, 8520: Fleet/vehicle, vehicle wraps, watercraft, transit, labels, thermoformable graphics, smooth walls
- 8518, 8914: Windows and glass
- 8915: Fleet/vehicle, vehicle wraps, watercraft, transit, signage, smooth walls
- 8528: Fleet/vehicle, vehicle wraps, transit, smooth walls, windows, and glass
- Floor graphics (**8520 only**)

ⓘ IMPORTANT NOTE

8520 has been tested according to the UL410 specification, and is certified to be slip-resistant for use in floor graphics.



Characteristics

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

Performance Characteristics

Characteristic	Value
Material	Cast vinyl
Thickness	2 mils
Gloss	8518, 8914, 8528: Gloss 8519: Luster 8520: Matte 8915: Ultra-matte
Liner	8518, 8914, 8528: Polyester 8519, 8520, 8915: Kraft paper
Lamination Temperature	60°F to +100°F (15°C to +38°C)
In Use Temperature Range	-65°F to +200°F (-54°C to +93°C)
Chemical Resistance	• Resists mild alkalis, mild acids, and salt • Excellent resistance to water (<i>does not include immersion</i>) • Resists occasional fuel spills
Flammability	ASTM E84 reports: 8518 , 8519 , 8520 , and 8528 , or go to the online product catalog at 3Mgraphics.com . For all other test reports call 1-800-328-3908.

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

CAUTION

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

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.

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

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

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 [3M Instruction Bulletin 4.3](#) 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 properly manufacture a graphic.

- [3M Instruction Bulletin 4.22](#) Lamination Basics for Inkjet Printed Graphics
- [3M Instruction Bulletin 5.7](#) Application, Wet Method for Translucent, Inkjet, Screen Printed and Cut Graphics

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.

Shelf Life, Storage, and Shipping

Shelf Life

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

Processing the film changes its shelf life to **one year** from the processing date, but no later than three years from the manufacturing date.

Storage Conditions

- 40°F to 100°F (4°C 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 a 6 in. (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 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](https://www.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.

Air Quality Regulations

State volatile organic compound (VOC) regulations may prohibit the use of certain chemicals with VOCs in graphic arts coatings and printing operations. For example, the California South Coast Air Quality Management District (AQMD) prohibits the use of certain solvent-based solutions without a permit, while other California AQMDs prohibit the use of certain solutions without a permit or regulatory exemption. Users should check with their state's environmental authorities to determine whether use of this product may be restricted or prohibited.

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](https://www.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.

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Revision D, February 2022 Please recycle.





Department of Planning and Zoning

Town of Vienna, Virginia

127 Center Street S

Vienna, Virginia 22180

Phone: 703-255-6341 | Email: DPZ@viennava.gov

Hours: Monday – Friday, 8:00 am - 4:30 pm

APPLICANT AUTHORIZATION FORM

I hereby certify that I am the property owner or I have authority of the property owner to make this application, that the information is complete, and that if a permit or certificate is issued, the construction and/or use will conform to the zoning ordinance and other applicable laws and regulations including private building restrictions, if any, which relate to the property. This form must be submitted prior to issuance of any permit or certificate.

I understand that the permits or certificates obtained pursuant to this permit authorization form will be in my name. I accept full responsibility for the work performed.

Check one box below:

I am the property owner

I am an applicant who has the authority of the property owner (owner will still need to sign)

Description of permits or certificates being applied for:

at the following address: _____

Applicant Name (fill out if owner is not applicant): _____

Signature of Applicant: Bakr Awad Date: 10/29/25

Property Owner's Name: _____

Signature of Property Owner: Bakr Awad Date: 10/29/25

BUSINESS NAME: _____ **ADDRESS:** _____

WASTEWATER DISCHARGE QUESTIONNAIRE

This form is required for all applicants for Certificates of Commercial Occupancy. Sections not applicable to your business should be marked with "n/a". Questions about the requirements of this form should be directed to the Town of Vienna Department of Public Works.

Part A:

Return Completed Questionnaire by: _____

Date Discharge to Commence: _____

A1. Business Name: _____

Property Address: _____

Legal Description: _____ Zoning: _____

Business Contact: _____ Title: _____

Address: _____

State & Zip: _____

Email: _____ Phone: _____

A2. Standard industrial classification (sic) code(s) or expected classification (if known):

☐ N/A

A3. Wastewater flow in gallons per quarter (may use water consumption):

☐ N/A

A4. Type and concentrations (or mass) of pollutants contained in discharge (see back of form):

☐ N/A

A5. Major products manufactured or services supplied if pollutant constitutes in discharge are not known:

☐ N/A

A6. Description of existing on-site pretreatment facilities and practices:

☐ N/A

☐ I certify that the information contained in this questionnaire is true, correct, and accurate to the best of my knowledge. I am aware that there are substantial penalties for reporting false information.

Applicant Signature: Bakr Awad Date: _____