



THIS IS NOT AN ORDER
All prices quoted shall be F.O.B.
Destination, Freight Prepaid and Allowed

All responses & inquiries must be plainly marked with this

***** CHANGED *****
REQUEST FOR QUOTATION
6000038750-2

| |
|---|
| Return Bids By 11:00 AM, 12/18/2014 to: |
| Kimberlie Williams-Kerner Purch Ass't KK TPU Administration Building North 3628 S. 35th St. Tacoma WA 98409 Ph. 253-502-8889 Fax.253-502-8372 |
| Material will ship to: |
| TPU Fleet Administration 3628 S 35th Street Tacoma WA 98409 |

| | |
|--|---------------------------|
| RFQ Information | |
| Collective Bid # | UF14-0674N |
| Bid Issue Date | 11/24/2014 |
| Vendor Number | 109226 WEB VENDOR FOR RFQ |
| Vendor Information (vendor to complete) | |
| Firm Name: | |
| Address: | |
| City/State/Zip | / / |
| Phone/Fax | / |
| E-Mail | |
| Contact Name | |
| Payment Terms | %, days (e.g. 2% 10,N30) |
| Tacoma Bus. Lic. # | |
| Taxpayer ID # | |
| SIGNATURE OF PERSON AUTHORIZED TO SIGN THIS BID | |
| x _____ | DATE: ___ / ___ / _____ |
| NAME : _____ | |
| TITLE : _____ | |

| Item # | Material# Description | Delivery Date | QTY | UM | Net Price | Total |
|--------|--|---------------|-----|----|-----------|-------|
| | <p>ADDENDUM NO. 2:</p> <p>New material specifications added. The material specifications are meant as a standard; other brands must meet or exceed the technical requirements. If offering an alternate brand, please provide the material specifications for evaluation. Decals with a white background must have a 1/4 inch black border around the perimeter. You may provide a submittal for full or diecut; please specify which you are quoting. Vendors may provide multiple submittals.</p> <p>Warranty: Materials must have an expected life of seven years and a minimum warranty period of five years. Please include warranty information with your submittal.</p> <p>Bid opening date changed to December 18, 2014.</p> <p>Delivery must be within 10 days of receipt of purchase order. Please provide lead time.</p> <p>_____</p> | | | | | |

***** THIS DOCUMENT IS A REVISION OF THE ORIGINAL *****
REFER TO DOCUMENT 6000038750 FOR ALL ITEMS



CITY OF TACOMA

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| Item # | Material# Description | Delivery Date | QTY | UM | Net Price | Total |
|--------|---|---------------|-----|----|-----------|-------|
| | <p>ADDENDUM NO. 1:</p> <p>Material specifications are attached. Only specified material will be accepted.</p> <p>Full decals or individual cut may be bid. Please specify which type you are bidding.</p> <p>All decals have a clear background. Power, Water, and Rail graphic to include "Tacoma" in Pantone PMS Cool Gray 5.</p> <p>Approximate size listed reflects what is currently used.</p> <p>Alternate sizes must be listed. The decision of the City as to what items are equal shall be final and conclusive.</p> <p>Bid opening date changed to December 15, 2014.</p> <hr/> <p>Tacoma Public Utilities (TPU), Fleet Services is soliciting bids to provide printed vehicle/equipment graphic decals on an as-needed basis for three-years from date of award with two one-year renewal options.</p> <p>It is TPU's intent to award one contract. However, multiple contracts may be awarded from this bid. Only firm pricing will be accepted for the initial contract term.</p> <p>If after the first contract term TPU chooses to evaluate the possible extension of the contract, please list below the maximum percentage price escalation that would be offered.</p> <p>Year 4 _____%</p> <p>Year 5 _____%</p> <p>All price escalations quoted for years 4 and 5 shall be a percentage increase of the previous year's price.</p> | | | | | |

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| Item # | Material# Description | Delivery Date | QTY | UM | Net Price | Total |
|--------|--|---------------|-----|----|-----------|-------|
| | <p>Any proposed price increase to contract line items must be beyond the control of the vendor and supported by written documentation from the supplier, manufacturer or wholesale distributor, indicating new higher cost adjustments in effect. Supporting documentation must be included with each request for price adjustment.</p> <p>No adjustment will be made for vendor profit margin.</p> <p>All bid pricing shall be FOB Destination, freight prepaid and included in the unit price.</p> <p>Additional Products: The City may request to add new products if the supplier approves them and the supplier initials in the space provided below to confirm pricing will be from the same pricing structure/ profit margin for the duration of the contract.</p> <p>_____ pricing on new products added to the contract will be from the same pricing structure/profit margin as items on the original award.</p> <p>The quantities shown are estimates only and not a guarantee for any particular dollar or unit volume.</p> <p>Technical contact: Patty Gillingham, 253-502-8651</p> <p>Purchasing contact: Kimberlie Kerner, 253-502-8889</p> <hr/> <p>****Supplemental bid information and requirements****</p> <p>Decals shall be 3M IJ180CV3 laminated with 3M 8519 cast luster laminate.</p> <p>Individual cut graphics shall be 3M 7725 series premium cast vinyl covered with 3M-SPCM-3 transfer tape.</p> <p>Vector files will be provided upon award.</p> <p>The quantities listed are TPU's current approximate requirements. TPU will neither be obligated to nor restricted to these quantities.</p> <p>Please include (on a separate piece of paper if necessary) the following</p> | | | | | |

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| Item # | Material# Description | Delivery Date | QTY | UM | Net Price | Total |
|--------|--|---------------|-----|----|-----------|-------|
| 10 | <p>information with your submittal:</p> <p>Expected life warranty for the decals being offered.</p> <p>Manufacturer specifications, to include but not be limited to, material composition and decal size. Decal size must be approximately the same size as listed on the attached spreadsheet.</p> <p>Quantity and price for smaller order increments.</p> <p>Vehicle/Equipment Decals total price from attachment.</p> | | 1 | AU | | |

*** THIS DOCUMENT IS A REVISION OF THE ORIGINAL ***
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| | |
|---------------------|----|
| Net Value | \$ |
| Plus Tax at | \$ |
| _____ % | \$ |
| Total Amount | \$ |

3M Commercial Graphics

3M™ Scotchcal™ Clear View Graphic Film IJ8150



A Clear Advantage For Windows

Finally! Optical clarity in a durable and conformable film for inkjet and screen printing.

- **Vehicle Graphics**
- **Building Window Graphics**
- **Point of Purchase Graphics**

Discover the advantages of a highly transparent film from 3M.



Discover the advantages of a highly transparent film from 3M.

3M™ Scotchcal™ Clear View Graphic Film IJ8150 is a cast vinyl film with optical clarity that allows new approaches to graphics for windows. Unprinted areas permit a completely clear view through glass. When you need an image, the film's structure allows optimum print quality and opens up numerous opportunities for use. The film is also easy to apply.

■ A clear advantage . . . for vehicle graphics

New possibilities for graphics on all types of vehicles. Stretch your imagination for vehicle windows that allow one-way vision graphics without a perforated window film.*

■ A clear advantage . . . for building window graphics

Creative graphics on building windows. Combine multiple design elements into one larger graphic.

■ A clear advantage . . . for point of purchase

Use this highly transparent film at the point of sale when designing display windows and dividing walls, mobile displays, directional and informational signs, glass refrigerated displays and much more. Clear view film IJ8150 offers easy removability, making it a great option for promotions and short term applications.

*Contra Vision Ltd is the owner of certain patents for one-way vision and other see-through graphic products. When producing the one-way vision or perforated window film simulation, graphic manufacturers need a license and can register and obtain a license online at www.contravision.com "Online Licensing."

Advantages and Benefits:

- Special graphic effects are possible — for example, prints using white ink
- One-way vision achievable due to perforated window film simulation
- Less cutting needed because you can combine your independent design elements into one piece
- Optimized for wet application, making it very easy to install
- A 2 mil cast PVC film with conformability to compound curves as seen on vehicle windows
- The one-sheet solution that slashes removal time and effort
- Offered with the 3M Performance Guarantee or 3M™ MCS™ Warranty
- An effective performance life of seven years
- Compatible with digital and screen printing systems
- Features a special liner that prevents static charge or discharge during processing



Stay Informed:

www.3Mgraphics.com



For the most current 3M Technical Information available to successfully use this product, please view this Bulletin electronically and click on the blue underlined links to view the relevant documents.

1. Product Description

A. Product Features

- 2-mil optically clear, vinyl film
- Pressure-sensitive adhesive
- For screen printing and solvent, latex and UV Inkjet printing
- Conforms to simple curves and mild compound curves as found on vehicle windows
- Removable without heat

B. Recommended Types of Graphics and End Uses

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.

- Building windows and dividers, interior and exterior
- Non-regulated vehicle windows

C. Performance Overview

3M tests the performance of both individual products and finished graphic constructions. This table shows the best performance expected from this product without a Warranty Period and with a Warranty Period.

For detailed graphic construction and application options along with specific Warranty Periods, please see the Warranty Information, Section 5 on page 7.

| | |
|---|-------------------------------|
| Expected Performance Life. This is the estimated period of time the product should perform satisfactorily. | |
| Unprinted film with no graphic protection, applied to a flat vertical outdoor surface. | 7 years Unwarranted Period |
| 3M™ MCS™ Warranty. This is the maximum period of time 3M will warrant the finished graphic performance. | |
| Printed film with the best 3M ink and graphic protection option, applied to a flat, vertical outdoor surface. | 5 years Warranty Period |
| 3M Performance Guarantee. This is the maximum period of time 3M will warrant the performance of the 3M materials used. | |
| Printed film with the best ink and graphic protection option, applied to a flat, vertical outdoor surface. | 3 years Warranty Period |

D. Limitations of End Uses

This 3M product is not designed or recommended for the following uses. Please contact us to discuss other options.

(1) Unsuitable End Uses for This Film

- Do not use for graphics applied to:
 - windows that have built-in heating, defrosting elements, wipers, or tinted or protective films.
 - substrates with coatings such as anti-reflection and scratch resistance; such coatings may be damaged during film removal.
 - low surface energy substrates or substrates with low surface energy coating.
 - graphics subjected to gasoline vapors or spills.

(2) Be Aware of All Laws and Regulations

Some states have laws or regulations requiring minimum light transmission that may limit or preclude the use of this product on regulated vehicle windows, which may include passenger vehicles and vans. The user is responsible for determining and complying with all applicable standards.

(3) Additional Safety Considerations

- 3M Commercial Graphics policy is not to support applications of this window graphic film when a driver's view is obstructed, which may include non-vertical windows, and/or where local laws prohibit its use.
- Do not use on applications that in any way restrict the safe operation of emergency window exits.
- Do not use on any regulated vehicle window.
- 3M accepts no liability for glass breakage when using this film for window graphics.

2. Compatible Products

The following products 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. Click on the blue underlined text, later in this Bulletin for more information about the compatible products.

See the **Warranty Information** Section 5 on page 7 to determine which compatible products are approved for your graphic construction.

A. Inkjet Inks and Printers for 3M™ MCS™ Warranty

(1) Solvent Inkjet Inks

- Ink Series**
- [3M™ Piezo Inkjet Ink Series 1500v2](#)
 - [3M™ Piezo Inkjet Ink Series 4400](#)
 - [3M™ Piezo Inkjet Ink Series 4800](#)
 - [SIIT GX 3M Ink Series](#)

Printer

- EFI™ VUTEK® 150, 2360/3360, 3300/5300 & 3000/5000 Printers
- HP XLJet 1200 and 1500 Printers
- HP Scitex TJ8300 & TJ8350 Industrial Presses
- Seiko I Infotech ColorPainter™ H Series H-74s, H2-74s, H-104s, H2-104s, W-54s & W-64s Printers
- HP Designjet L65500; Scitex LX600, LX800, LX820 & LX850; Latex 820 & 850 Printers
- HP Designjet L65500, Scitex LX600, LX800, LX820 & LX850; Latex 820 & 850 Printers
- HP Designjet L26100, L26500 & L28500 Latex 210, 260 & 280 Printers
- HP Latex 3000 Printer
- HP Latex 360 Printer

(2) Latex Inkjet Inks

- [HP 3M LX600 Specialty Latex Ink](#)
- [HP LX610 Latex Ink](#)
a 3M™ MCS™ Warranty Component
- [HP 792 Latex Ink](#)
a 3M™ MCS™ Warranty Component
- [HP 881 Latex Ink](#)
a 3M™ MCS™ Warranty Component
- HP 831 Latex Ink
a 3M™ MCS™ Warranty Component

(3) UV Inkjet Inks and Printers

- [3M™ Piezo Inkjet Ink Series 2200UV](#)
- [3M™ Piezo Inkjet Ink Series 2800UV](#)
- [EFI™ VUTEK® GS 3M™ Premium UV Inks](#)
- [EFI™ VUTEK® GSr 3M™ Premium UV Inks](#)
- [EFI™ VUTEK® GSLXr 3M Superflex UV Ink](#) *(excludes White Ink)*
- [EFI™ R3225 3M™ UV Ink](#)
- [Mimaki LF-200 Ink Series](#)
Manufactured by 3M
- [Mimaki UV Ink LUS-200](#)
Manufactured by 3M

- EFI™ VUTEK® PV200 Printer
- EFI™ VUTEK® QS2000, QS3200, QS3220 and QS220 Printers
- EFI™ VUTEK® GS2000, GS3200 & GS3250 Printers, including GS Pro Series
- EFI™ VUTEK® GS5000r & GS3250r Printers
- EFI™ VUTEK® GS3250LXr and GS5500LXr Pro Printers
- EFI™ R3225 UV Roll-to-Roll Printer
- Mimaki UJV-160, JFX-1631 & 1615R Printers
- Mimaki UJV500-160 Printer

(4) Graphic Protection

- [3M™ Scotchcal™ Gloss Overlamine 8518](#)
- [3M™ Scotchcal™ Luster Overlamine 8519](#)
- [3M™ Scotchcal™ Matte Overlamine 8520](#)
- [3M™ Scotchcal™ Gloss Overlamine 8528](#) with horizontal vehicle Warranty Period! See page 10.
- [3M™ Scotchcal™ Optically Clear Overlamine 8914](#)
- [3M™ Scotchcal™ Ultra Matte Overlamine 8915](#)
- [3M™ Screen Print UV Gloss Clear 9740j](#)
- [3M™ Screen Print Gloss 1920DR](#)

B. Inkjet Products for 3M Performance Guarantee

- For the most current information, please click here: [3M Performance Guarantee Matrix](#).

C. Screen Printing Products for 3M™ MCS™ Warranty

(1) Screen Printing Inks

- [3M™ Screen Printing UV Ink Series 9800](#)
- [3M™ Screen Printing Ink Series 1900 \(Solvent\)](#)

(2) Graphic Protection

- [3M™ Screen Print Matte Clear 9730UV](#)
- [3M™ Screen Print UV Gloss Clear 9740j](#)
- [3M™ Screen Print UV Gloss Clear 9800CL](#) (with UV 9800 ink series only)
- [3M™ Screen Print Dirt Resistant Gloss Clear 1920DR](#)
- [3M™ Screen Print Matte Clear 1930](#)

3. Characteristics

All values are typical for unprocessed film and are not for use in specifications. Contact your 3M representative for a custom specification.

A. Physical Characteristics

| Characteristic | Value |
|---------------------|---|
| Material | Cast vinyl |
| Color | Optically clear |
| Film thickness | Without adhesive: 2 mil (0.05 mm) With adhesive: 3-4 mil (0.08-0.10 mm) |
| Adhesive type | Pressure-sensitive |
| Adhesive color | Clear |
| Liner | Transparent synthetic |
| Chemical resistance | <ul style="list-style-type: none"> • Resists mild alkalis, mild acids, and salt • Excellent resistance to water (<i>does not include immersion</i>) • Resists occasional fuel spills |
| Flammability | ASTM E84 report or go to the On-line Product Catalog at 3Mgraphics.com All other test reports: call 1-800-328-3908 |

B. Application Characteristics

| Characteristic | Value |
|--|---|
| Finished graphic application recommendations | <p>Surface type: Flat, without rivets, simple curves and mild compound curves</p> <p>Substrate type: Transparent substrates such as acrylic, glass, polycarbonate</p> <p>Application temperature: <i>air and substrate</i> 50° to 100°F (10° to 38°C)</p> <p>Application method: wet is preferred</p> |
| Finished graphic exposure temperature | -65° to +150°F (-54° to +65°C) |
| Graphic removal | Removable without heat for the Warranty Period from recommended substrates. See Removal, Section 11, for important procedures. |

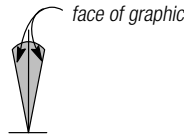
4. Definitions

A. Adhesive

Pressure Sensitive Adheres upon contact; is not slideable or repositionable.

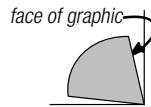
B. Exposure

U.S. Vertical Exposure



The face of the graphic is +/- 10° from vertical.

U.S. Non-vertical Exposure



The face of the graphic is greater than 10° from vertical and greater than 5° from horizontal. This includes non-vertical surfaces of vehicle wraps or fleet truck and trailer graphics.

U.S. Horizontal Exposure



The face of the graphic is +/- 5° from horizontal.

U.S. Desert Southwest Exposure

Any outdoor graphic exposed to solar energy more than half of the daylight hours in Arizona, New Mexico and the desert areas of California, Nevada, Utah and Texas is subject to reduced warranties. [Click here](#) for a detailed map.

C. Graphic Types

As identified in Product Warranty Matrices

Indoor Signs

Stationary graphics applied indoors and *not* exposed to the elements.

Outdoor Signs

Stationary graphics applied outdoors and exposed to the elements.

Vehicles

Buses, vans, passenger vehicles, delivery trucks, pickup trucks, enclosed trailers. Certain restrictions may apply as noted in the applicable Product Bulletin.

D. Graphic Construction

The products used to make a graphic, which may include film and/or flexible substrate, graphic protection, ink, printer and application tape.

E. Graphic Protection

Overlaminates films or clear coats used to protect the graphic and/or change gloss.

5. Warranty Information

A. Warranty Coverage Overview

The Warranty coverage for each graphic is based on the user(s) both reading and following all applicable and current 3M Product and Instruction Bulletins. 3M will honor the Warranty Period stated in the base film's Product Bulletin that is current when the film was purchased. The Warranty Period may be reduced and stipulations may apply for certain constructions and applications, as covered in this Bulletin.

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.

B. 3M Basic Product Warranty

This Product is 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 and as further set forth in the [3M Graphics Warranties Brochure](#).

C. Limited Remedy

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.

D. 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 ABOVE), 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 SELLER'S 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 including breach of contract, breach of warranty, negligence, strict liability, or any other legal or equitable theory.

E. Additional Limitations

See the [3M Graphics Warranties Brochure](#) at 3Mgraphics.com, which gives the terms, additional limitations of the Warranty, if any, and limitations of liability.

F. 3M Performance Guarantee

Subject to Stipulations set forth in Section H, below

Graphics constructed with the 3M materials specified and in the exposure specified in the Warranty Period Table, Section 5F(1), are eligible for the 3M Performance Guarantee. This Warranty only covers the performance of the recommended 3M products used in the graphic construction when imaged with the printers and OEM inks listed in the most current version of the [3M Performance Guarantee Matrix](#) at 3Mgraphics.com. The Matrix may also list certain restrictions for using the film covered in this Bulletin. For Warranty Periods for other exposures, see Section H(1), on page 10.

(1) Warranty Period Table for 3M Product Performance in a Standard U.S. Vertical Exposure

See Section 4 for Graphic Type definitions:

- VEH = Vehicle Graphics
- OUT = Outdoor Signs
- IN = Indoor Signs

Warranty Period for 3M Product Performance, in Years

| Film | Graphic Protection | VEH, IN, OUT | Inks and Printers** |
|--------|-------------------------------------|--------------|---|
| IJ8150 | 8518, 8519, 8520, 8528*, 8915, 8914 | 3 | See the 3M Performance Guarantee Matrix |
| | 1920DR, 9740i | 3 | |

*For the horizontal Warranty Period with overlamine 8528, which is only available for vehicle graphics, please see section H(2) on page 10.

**Some of the graphic protection products and graphic types may not be approved for this film on certain printing platforms. Always refer to the Performance Guarantee Matrix.

G. 3M™ MCS™ Warranty
Subject to Stipulations set forth in Section H, on page 10

Finished graphics constructed with the materials specified and the exposure specified in the Warranty Period Tables, Section G(2), are eligible for the 3M™ MCS™ Warranty. For warranties for other exposures, see Section H(1), on page 8.

- (1) **Certificate of 3M™ MCS™ Warranty Requirement**
- (2) **Warranty Period Tables for Finished Graphics in a Standard U.S. Vertical Exposure**

Only graphics manufacturers having a current Certificate of 3M™ MCS™ Warranty are eligible to extend this Warranty to their customers.

See Section 4 for Graphic Type definitions:

- VEH = Vehicle Graphics
- OUT = Outdoor Signs
- IN = Indoor Signs

a. Inkjet Printing

Warranty Period for Finished Graphics, Vertical Exposure, in Years

| SOLVENT PRINTERS and INKS | EFI™ VUTEK® 150, 2360/3360, 3300/5300, 3000/5000 Printers | | | HP XL1200, XL1500 Printers | | | HP Scitex TJ8300 and TJ8350 Industrial Presses | | |
|---------------------------|---|-----|----|----------------------------|-----|----|--|-----|----|
| | 3M Ink Series 1500v2 | | | 3M Ink Series 4400 | | | 3M Ink Series 4800 | | |
| Graphic Protection | VEH | OUT | IN | VEH | OUT | IN | VEH | OUT | IN |
| 8518, 8519, 8520, 8914 | 3 | 3 | 8 | 3 | 3 | 8 | 3 | 3 | 8 |
| 8528* | 3/3 | 3 | 8 | 3/3 | 3 | 8 | 3/3 | 3 | 8 |
| 8915 | 3 | 3 | 8 | 3 | 3 | 8 | 3 | 3 | 8 |
| 1920DR | 3 | 3 | 5 | — | — | — | 3 | 3 | 5 |
| 9740i | 3 | 3 | 8 | 3 | 3 | 8 | 3 | 3 | 8 |
| None | — | — | 2 | — | — | 2 | — | — | 2 |

| SOLVENT PRINTERS and INKS | SIIT ColorPainter™ H-74s, H-104s, H2-74S, H2-104s, W-54s and W-64s Printers | | |
|---------------------------|---|-----|----|
| | GX 3M Ink Series | | |
| Graphic Protection | VEH | OUT | IN |
| 8518, 8519, 8520, 8914 | 3 | 3 | 8 |
| 8528* | 3/3 | 3 | 8 |
| 8915 | — | — | — |
| 1920DR | 3 | 3 | 5 |
| 9740i | 3 | 3 | 8 |
| None | — | — | 2 |

| LATEX PRINTERS and INKS | HP Designjet L65500; Scitex LX600, LX800, LX820, LX850; Latex 820, 850 Printers | | | HP Designjet L65500; Scitex LX600, LX800, LX820, LX850; Latex 820, 850 Printers | | | HP Designjet L26100, L26500, L28500; Latex 210, 260, 280 Printers | | |
|------------------------------|---|-----|----|---|-----|----|---|-----|----|
| | HP 3M LX600 Latex Ink | | | HP LX610 Latex Ink <small>a 3M™ MCS™ Warranty Component</small> | | | HP 792 Latex Ink <small>a 3M™ MCS™ Warranty Component</small> | | |
| Graphic Protection | VEH | OUT | IN | VEH | OUT | IN | VEH | OUT | IN |
| 8518, 8519, 8520, 8914, 8915 | 3 | 3 | 5 | 3 | 3 | 5 | 3 | 3 | 5 |
| 8528* | 3/2 | 3 | 5 | 3/2 | 3 | 5 | 3/2 | 3 | 5 |
| 1920DR | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 3 |

* Overlamine 8528: first number represents the vertical warranty and the second number the horizontal warranty on vehicle graphics. Please see Section H(1) on page 10.

a. Inkjet Printing, *continued...*

Warranty Period for Finished Graphics, Vertical Exposure, in Years

| LATEX PRINTERS and INKS | HP Latex 3000 Printer | | | HP Latex 360 Printer | | |
|------------------------------|--|-----|----|--|-----|----|
| | HP 881 Latex Ink a 3M™ MCST™ Warranty Component | | | HP 831 Latex Ink a 3M™ MCST™ Warranty Component | | |
| Graphic Protection | VEH | OUT | IN | VEH | OUT | IN |
| 8518, 8519, 8520, 8914, 8915 | 3 | 3 | 5 | 3 | 3 | 5 |
| 8528* | 3/2 | 3 | 5 | 3/2 | 3 | 5 |
| 1920DR | 2 | 2 | 3 | 3 | 2 | 3 |

| UV PRINTERS and INKS | EFI™ VUTEK® PV200 Printer | | | EFI™ VUTEK® GS3250LXr and GS5500LXr Pro Printers | | | EFI™ VUTEK® QS2000, QS3200, QS3220 & QS220 Printers | | |
|------------------------------|---------------------------|-----|----|--|-----|----|---|-----|----|
| | 3M Ink Series 2200UV | | | EFI™ VUTEK® GSLXr 3M Superflex UV Ink Warranty excludes white ink | | | 3M Ink Series 2800UV | | |
| Graphic Protection | VEH | OUT | IN | VEH | OUT | IN | VEH | OUT | IN |
| 8518, 8519, 8520, 8914, 8915 | 3 | 3 | 8 | 3 | 3 | 5 | 3 | 3 | 8 |
| 8528* | 3/3 | 3 | 8 | 3/2 | 3 | 5 | 3/3 | 3 | 8 |
| 1920DR | — | — | — | — | — | — | — | — | — |
| 9740i | 3 | 3 | 8 | 3 | 2 | 5 | 3 | 3 | 8 |
| None | — | — | 2 | — | — | — | — | — | 2 |

| UV PRINTERS and INKS | EFI™ R3225 UV Roll-to-Roll Printer | | | EFI™ VUTEK® GS5000r, GS3250r Printers | | | EFI™ VUTEK® GS2000, GS3200, GS3250, GS Pro Series Printers | | |
|------------------------------|------------------------------------|-----|----|---------------------------------------|-----|----|--|-----|----|
| | R3225 3M UV Inks | | | GSr 3M Premium UV Inks | | | GS 3M Premium UV Inks | | |
| Graphic Protection | VEH | OUT | IN | VEH | OUT | IN | VEH | OUT | IN |
| 8518, 8519, 8520, 8914, 8915 | 3 | 3 | 8 | 3 | 3 | 8 | 3 | 3 | 8 |
| 8528* | 3/3 | 3 | 8 | 3/3 | 3 | 8 | 3/3 | 3 | 8 |
| 1920DR | 3 | 2 | 5 | 3 | 2 | 5 | 3 | 2 | 5 |
| 9740i | 3 | 3 | 8 | 3 | 3 | 8 | 3 | 3 | 8 |
| None | — | — | 2 | — | — | 2 | — | — | 2 |

| UV PRINTERS and INKS | Mimaki UJV-160, JFX-1631 and 1615R Printers | | | Mimaki UJV500-160 Printer | | |
|------------------------------|---|-----|----|---|-----|----|
| | Ink Series LF-200 Manufactured by 3M | | | Mimaki UV Ink LUS-200 Manufactured by 3M | | |
| Graphic Protection | VEH | OUT | IN | VEH | OUT | IN |
| 8518, 8519, 8520, 8914, 8915 | 3 | 3 | 8 | 3 | 3 | 8 |
| 8528* | 3/3 | 3 | 8 | 3/3 | 3 | 8 |
| 1920DR | — | — | — | 3 | 2 | 5 |
| 9740i | — | — | — | 3 | 3 | 8 |

* Overlaminated 8528: first number represents the vertical Warranty Period and the second number the horizontal Warranty Period on vehicle graphics. Please see Section H(1) on page 10.

b. Screen Printing

Warranty Period for Finished Graphics, Vertical Exposure, in Years

| SCREEN PRINTING | No Ink | Ink Series 1900 | | | Ink Series 9800, non-Metallic | | | Ink Series 9800, Metallic | | |
|--------------------|--------|-----------------|-----|----|-------------------------------|-----|----|---------------------------|-----|----|
| | | VEH | OUT | IN | VEH | OUT | IN | VEH | OUT | IN |
| Graphic Protection | None | | | | | | | | | |
| 1920DR | — | 5 | 5 | 8 | — | — | — | — | — | — |
| 1930 | — | 2 | 2 | 3 | — | — | — | — | — | — |
| 9740i | — | 5 | 5 | 8 | 5 | 5 | 8 | 5 | 5 | 8 |
| 9730UV | — | 3 | 3 | 8 | 3 | 3 | 8 | — | — | — |
| 9800CL | — | — | — | — | 5 | 5 | 5 | 5 | 5 | 5 |
| None | 3 | — | — | — | — | — | — | — | — | — |

NOTE: No horizontal warranty is offered for screen printed graphics using this film.

H. General Warranty Stipulations for 3M™ MCS™ Warranty and 3M Performance Guarantee

These stipulations apply to both the 3M™ MCS™ Warranty and 3M Performance Guarantee. General provisions for these stipulations are covered in the [3M Performance Guarantee Matrix](#) at 3Mgraphics.com.

(1) Reduced Warranty Period for Other Graphic Exposures

For graphics oriented in a non-vertical or desert southwest, outdoor exposure, multiply the Warranty Period (in years) for your graphic construction as shown in the applicable Warranty Period Table, Section G(2) on page 8 or F(1) on page 7, by the percentage shown for the intended graphic exposure.

| If the Graphic Exposure is: | Use this Percentage of U.S. Vertical Exposure, Warranty Period | Warranty Period Calculation Examples |
|---------------------------------|--|--------------------------------------|
| U.S. Non-vertical | 50% (0.5) | 0.5 x 3 years = 1.5 years |
| Desert Southwest Vertical | 70% (0.7) | 0.7 x 3 years = 2.1 years |
| Desert Southwest Non-vertical | 35% (0.35) | 0.35 x 3 years = 1.05 years |
| Horizontal (most constructions) | 0% (0.0) | 0 years |

(2) Horizontal Warranty Period with Overlamine 8528 ONLY

Printed film as specified in this bulletin for vehicle graphics with:
 Overlamine 8528 using solvent or UV inks: U.S. = 3 years; Desert S.W. = 2.1 years
 Overlamine 8528 using latex inks: U.S. = 2 years; Desert S.W. = 1.4 years

(3) Abrasion and Loss of Gloss

Abrasion damage and loss of gloss are not covered by any 3M warranty. This is considered normal wear and tear. However, to help maintain the appearance of your graphic, use the recommended graphic protection whenever:

- it is required for the construction and end use as shown in the Warranty Period tables.
- the graphic, including printed vehicle graphics, is exposed to abrasive conditions, harsh cleaners or chemicals.

(4) Sheeted Film

3M does not warrant inkjet printing on sheeted film because material handling can contaminate the film's surface and affect print quality.

(5) **Applications Outside the U.S.**

Contact the 3M organization for that country.

(6) **Application to Glass**

3M accepts no liability for glass breakage when using this film for window graphics. See [3M Instruction Bulletin 5.1](#) for details.

(7) **Graphics Made with Components Not Sold or Recommended by 3M**

The 3M™ MCS™ Warranty does not, under any circumstances, cover graphics made with ink, film, graphic protection and/or application tapes not sold or recommended by 3M.

The user is solely responsible for the graphic appearance, performance and durability of graphic constructions that include any non-recommended or non-qualified products.

6. Factors that Affect Graphic Performance Life

The actual performance life of a graphic is affected by:

- the combination of graphics materials used.
- ink formulation.
- 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.

7. Graphics Manufacturing



CAUTION

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

A. Inkjet Printing

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

(1) **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 and latex ink.

Do not exceed the recommended total ink coverage for the ink series used on this film. Too high a total physical ink amount on the film results in media characteristic changes, incomplete drying, overlamine lifting, and/or poor graphic performance. Refer to the Product & Instruction Bulletin for the 3M ink system being used or the Performance Guarantee Matrix for OEM inks for additional details about total ink coverage.

(2) **Completely Dry Graphics**

Important Note!

Incomplete drying can result in graphic failure including curling, increased shrinkage and adhesion failure, which are not covered under warranty.

Always build enough time into your process to ensure complete drying of the graphic. Poorly dried film may become soft and stretchy, and the adhesive may become too aggressive. This can cause difficulty when applying an overlamine, rolling or applying the graphic. See the ink's Product & Instruction Bulletin for more details.

B. Cutting Methods

- Cold steel rule die
- Sharp knife
- Knifeless™ Tape. 3M recommends using this product with this film. See <http://knifelesstechsystems.com/Home.aspx> for details, including videos and ordering information.

C. Application Tapes

(1) When to Use Premasking Tape

- Use as an application aid to increase stiffness, and to prevent stretching and damage during application.
- Use when little or no liner is exposed.

(2) When to Use Prespacing Tape

- Hold cut and weeded letters or graphics in registration after removing the film liner.
- Protect cut graphic parts from scratching or damage during application.
- Use when large amounts of liner are exposed.

(3) How to Select a Tape

Determine whether you want to premask the graphic or prespace cut pieces of film such as letters. Then locate the graphic protection used on your graphic in the table below, and use the corresponding tape. See [3M Instruction Bulletin 4.3](#) for complete details.

EXAMPLE: To premask a film protected with overlamine 8519, use tape SCPM-3.

Select the tape based on what is on top of the graphic

| Tape | None | 8519 8520 8915 | 8518 8528 8914 | 9740i 9730UV 9800CL | 1920DR 1930 |
|---------------------|------|----------------------|----------------------|---------------------------|----------------|
| Premasking SCPM-3 | — * | ■ | — | — | ■ |
| Premasking SPCM-44X | — | — | — | ■ | — |

— = Use of this application tape is not recommended in this construction.

* = Do not leave premasking SCPM-3 on bare graphic film for more than 48 hours at 55° to 80°F (13° to 27°C) to avoid surface impressions from forming.

D. Perforated Window Film Simulation

For tips on producing perforated window film simulation or other see-through effects on this film, see the Contra Vision website at www.contravision.com.

Contra Vision Ltd is the owner of certain patents for one-way vision and other see-through graphic products. When producing the one-way vision or perforated window film simulation, graphic manufacturers need a license and can register and obtain a license online at www.contravision.com "Online Licensing."

8. Application and Installation

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

- Design of graphics. [3M Instruction Bulletin 2.1](#).
- Scoring and cutting. [3M Instruction Bulletin 4.1](#).
- Hot and cold roll lamination. [3M Instruction Bulletin 4.22](#).
- Using 3M application tapes; premasking and prespacing for films. [3M Instruction Bulletin 4.3](#).

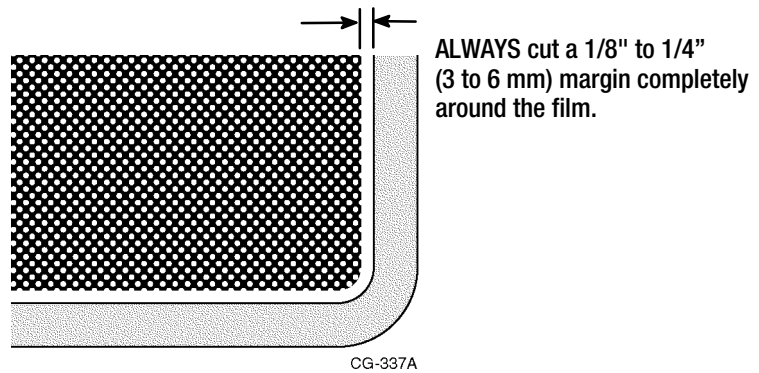
A. Wet Application Method

We recommend using a wet installation method. When using the wet method, some hazing may occur that should disappear within 48 hours. Allow the graphic to remain in an environment that is within the application temperature range for at least 24 hours, and then resqueegee the edges.

B. Cut a Margin Around Film on Windows

1. Always cut away a margin of 1/8 to 1/4 inch (3 to 6 mm) all around the graphic. See FIGURE 1 on page 13.
2. Do NOT apply the any film to any rubber gaskets or parts on the buses.
3. Do NOT allow any film to overlap the openings for any emergency window exits.
4. For complete application details, please refer to the most current release of the following 3M Instruction Bulletins.
 - Always use a wet application method. Refer to [3M Instruction Bulletin 5.7, Application: Wet Method for Translucent, Screen Printed and Cut Graphics](#)
 - [3M Instruction Bulletin 5.4, Application: Special Applications and Vehicles](#), specifically the "Vehicle and Store Windows" section.

FIGURE 1
Leave a Space All Around the Window



9. Maintenance and Cleaning

Use a cleaner designed for high-quality painted surfaces. The cleaner must be wet, non-abrasive, without strong solvents, and have a pH value between 3 and 11 (neither strongly acidic nor strongly alkaline).

10. Removal

- No heat or chemicals are typically needed for removal. The ease and rate of removal depends on several factors. See [3M Instruction Bulletin 6.5](#) for details.
- Heat may be used to soften the adhesive and assist in removing the film. Exposing the graphic to natural environmental heat rather than using a heat gun or torch is recommended. Always use caution to avoid breaking glass. Remove at your own risk.

11. Shelf Life, Storage and Shipping

| Activity | Recommendations |
|----------------------------|---|
| Shelf life | Total shelf life: 3 years from the date of manufacture on the original box. If you <u>do process</u> the film, do so within 2 years and apply within 1 year. If you <u>do not process</u> the film, apply it within 3 years. |
| Storage conditions | <ul style="list-style-type: none"> • 40-100°F (4-38°C) maximum • Out of direct sunlight • Clean, dry area • Original container • Bring film to room temperature before using |
| Shipping finished graphics | Flat: may be separated by paper Roll: printed side out on 6 inch (15 cm) diameter or larger core |

12. 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 sheets for 3M products go to 3M.com/MSDS, 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 manufacturers' instructions for safe operation.

13. Bulletin Change Summary

Modified and new content is marked with a black bar in the margin. Discontinued 3M Piezo Inkjet Ink Series 6200 for Agfa Jeti 3312, 3318, 3324 & 5024 [Gandinnovations] Printers and 3M Piezo Inkjet Ink Series 2700UV for Durst Rho 160R & 351R Printers. Added HP 831 Latex Ink for HP Latex 360 Printer, EFI™ VUTEK® GSLXr 3M Superflex UV Ink (*excludes White Ink*) for EFI™ VUTEK® GS3250LXr and GS5500LXr Pro Printers. Added requirement for Certificate of 3M™ MCS™ Warranty for Inkjet Printed Graphics Warranty stipulations. The 3M Related Literature section has been replaced by direct links to the most current versions of Bulletins or warranty information you may need to successfully use this product. All links are blue underlined text.



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