



3M™ MCS™ Warranty
on 3M vehicle films
printed with HP Latex printers

Roman Barba
HP Large Format Printing



HP Latex: the ideal technology for vehicle wrapping and fleet graphics

Instant lamination - easier installation!



“Application warranties” for the installed prints

Prints produced with HP Latex Inks meet the requirements from industry-leading vinyl manufacturers

The image features the 3M logo in a large, bold, red font. The '3' is a thick, rounded numeral, and the 'M' is a thick, blocky letter. The entire logo is centered horizontally and occupies a significant portion of the lower half of the slide.

The “3M™ Performance Guarantee” covers all HP Latex Inks and printers when used with a wide range of approved 3M media – refer to regional info for specifics (www.3Mgraphics.com)

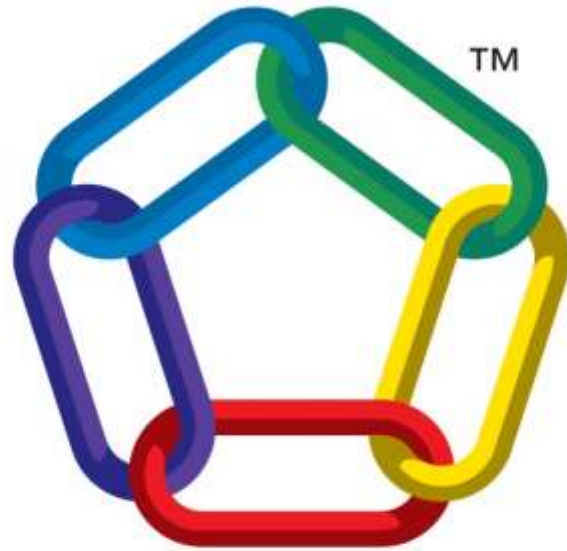
The logo consists of the letters '3' and 'M' in a bold, red, sans-serif font. The '3' is on the left and the 'M' is on the right, both rendered in a solid red color.

**3M Performance
Guarantee**

Specific 3M Inkjet
Products with
HP Latex Inks



The “3M™ MCS™ Warranty” includes selected HP Latex Inks and printers
Industry-leading warranty for vehicle graphics, outdoor signage, wall graphics, and window graphics



3M™ MCS™ Warranty



Process to become a 3M™ MCS™ certified PSP

Print service providers must be certified by 3M™ to offer the MCS™ Warranty, which requires:

- Inks labeled as 3M™ MCS™ Warranty Component
- Print on 3M media and protect with 3M laminate
- Register and follow 3M's recommended procedures



HP 831 Latex Inks are a 3M™ MCS™ Warranty Component

Used with the HP Latex 360 and 370 Printer (775-ml ink cartridges)



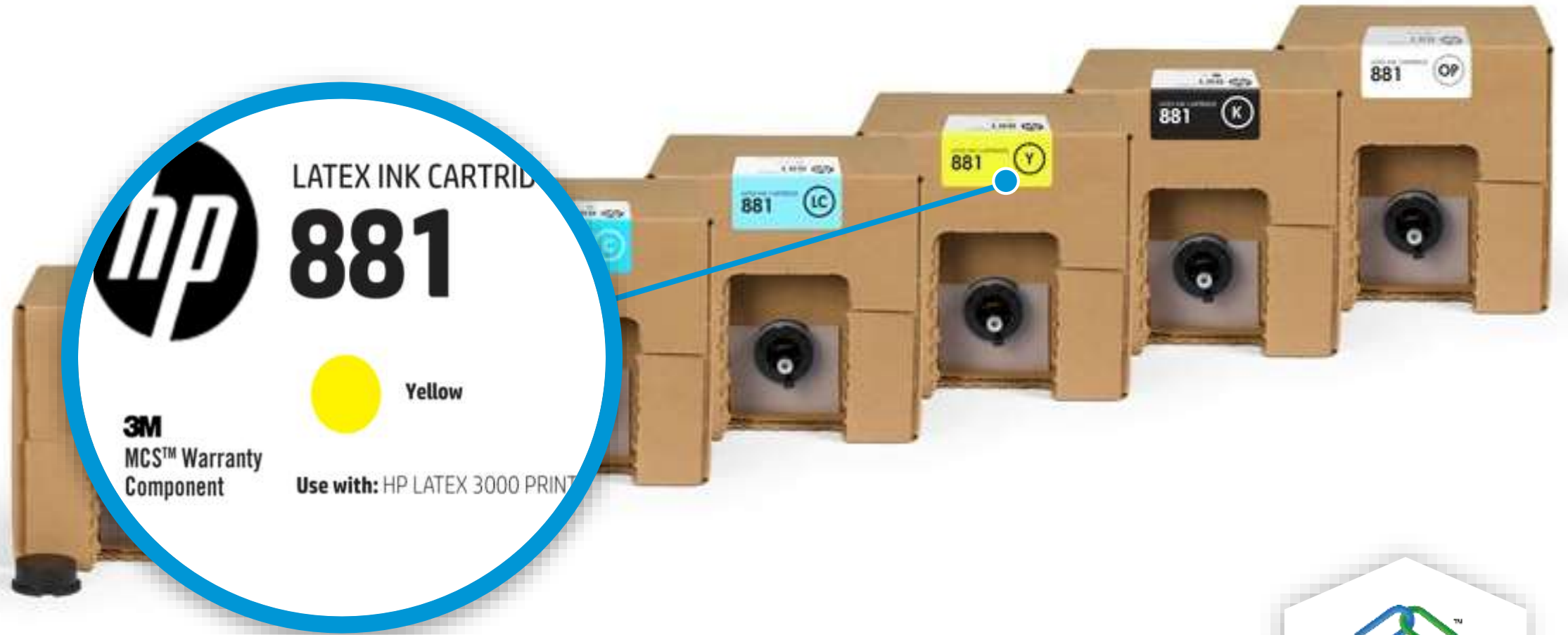
HP 871 Latex Inks are a 3M™ MCS™ Warranty Component

Used with the HP Latex 370 Printer (3-liter ink cartridges)



HP 881 Latex Inks are a 3M™ MCS™ Warranty Component

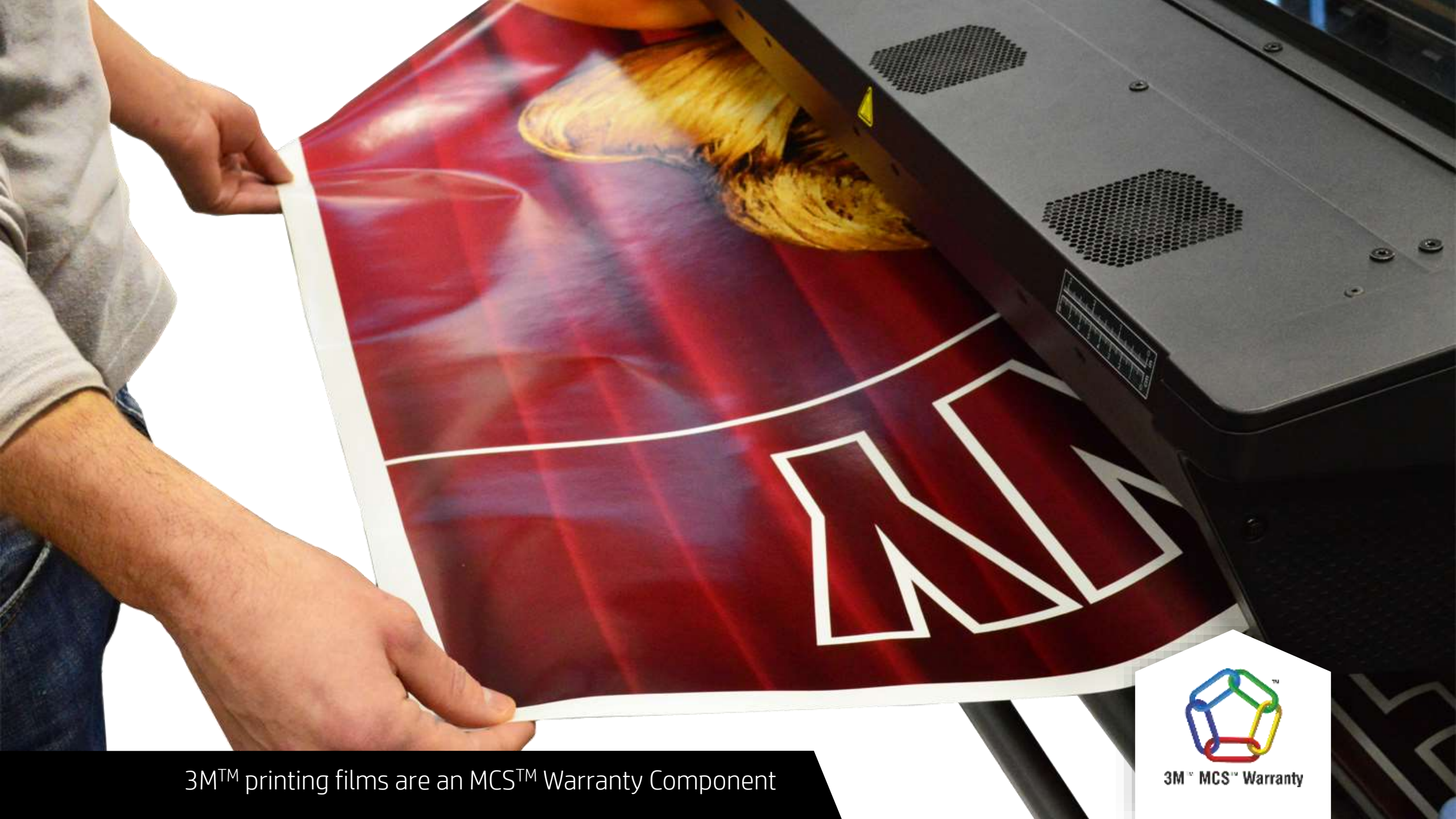
Used with the HP Latex 3000 and 3100 Printers (5-liter ink cartridges)



HP 3M 891 Latex Inks are a 3M™ MCS™ Warranty Component

Co-branded inks, used with the HP Latex 3500 Printers (10-liter ink cartridges)





3M™ printing films are an MCS™ Warranty Component



3M™ printing films and 3M™ film laminates are a MCS™ Warranty Component

Like the 3M™ Envision™ Print Wrap Film LX480Cv3 with 3M™ Envision™ Gloss Wrap Overlamine 8548G



3M™ has extended the warranty for vehicle graphics to 6 years!

Outdoor prints, 4 years & Indoor prints, 8 years

Vehicle graphics:



Up to
years,

with film lamination

IMPORTANT: Check the warranty duration by material and position. A 3M matrix exists per country, which covers specific information on what is covered and for how long.



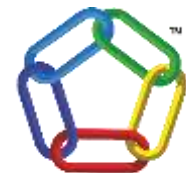
3M™ MCS™ Warranty



3M™ printing films and 3M™ clear coats are a MCS™ Warranty Component

3M™ Screen Print UV Gloss Clear 9760LX was designed specifically for HP Latex Inks...with a 5-year warranty

New!



3M™ MCS™ Warranty



New 3M™ UV Clear Coat: applied with a screen print press

Prints not recommended for vehicle wraps. Ideal for semi-trucks trailers, box trucks, and other “fleet” applications.



Different workflow than film lamination!

Curing method

UV

Gloss

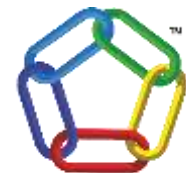
80-90 units

Thickness recommended

6-12 µm

Screen laminator

Bürkle LFC 1600 and similars



3M™ MCS™ Warranty



Application process and control variables

THICKNESS
RECOMMENDED
6 – 12µm

PROCESS



**KEY
PARAMETER!**

SETTINGS

	Roll to sheet	Web thread density 140-150 threads/inch 31-34 microns thread	Curing Power Lamps : 600 nw/cm2 Curing speed Exposure: 200w/inch	Tape, pre masking and Pres spacing as 3M bulletins
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ISSUES

Incorrect Thickness Cracking Gloss variations	Blistering Stickiness Yellowish color
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*for roll to roll it has to be validated prior deal with the specific customer HW by 3M



3M Controltac Graphic Film with Comply v3 Adhesive IJ180 Cv3-10

Laminated with *3M Screen Print UV Gloss Clear 9760LX* clear coat



Certified for
HP Latex Inks





A real project done by one American customer

Check 3M™ Product Bulletin 9760LX for additional information

November 2015 release

Screen Print UV Gloss Clear 9760LX

Product Bulletin 9760LX

Release A, November 2015

Product Description

- High-performance, ultraviolet-cured clear coat
- Designed for use on HP 831, 871, 881 and HP 3M 891 Latex Inks

Product Features

- Weather-resistant
- Tough, flexible, and abrasion-resistant

Recommended Types of Graphics and End Uses

- Indoor and outdoor graphics on flat, corrugated and/or riveted applications
- For graphics used in a petroleum environment where staining is not a concern

Characteristics

These are typical values. Processing may change the values.

Performance Characteristics


Characteristic	Value
Gloss	85-90 gloss units - 60 degree gloss
Recommended Coating Thickness	6 to 12 microns
Typical Coverage per U.S. gallon	2500-5000 ft ²
Flammability	ASTM E84 test reports are available on the On-line Product Catalog at 3Mgraphics.com (select a product and view its Literature tab) or call 3M at 1-800-328-3908.

Warranty Information

All 3M graphic protection products are covered by the 3M Basic Product Warranty. A warranty period may be offered based on the graphic construction and application details. Always refer to the 3M Product Bulletin for the 3M base film or flexible substrate you are using to determine if the graphic protection product you want to use is recommended and what, if any warranty period is offered.

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

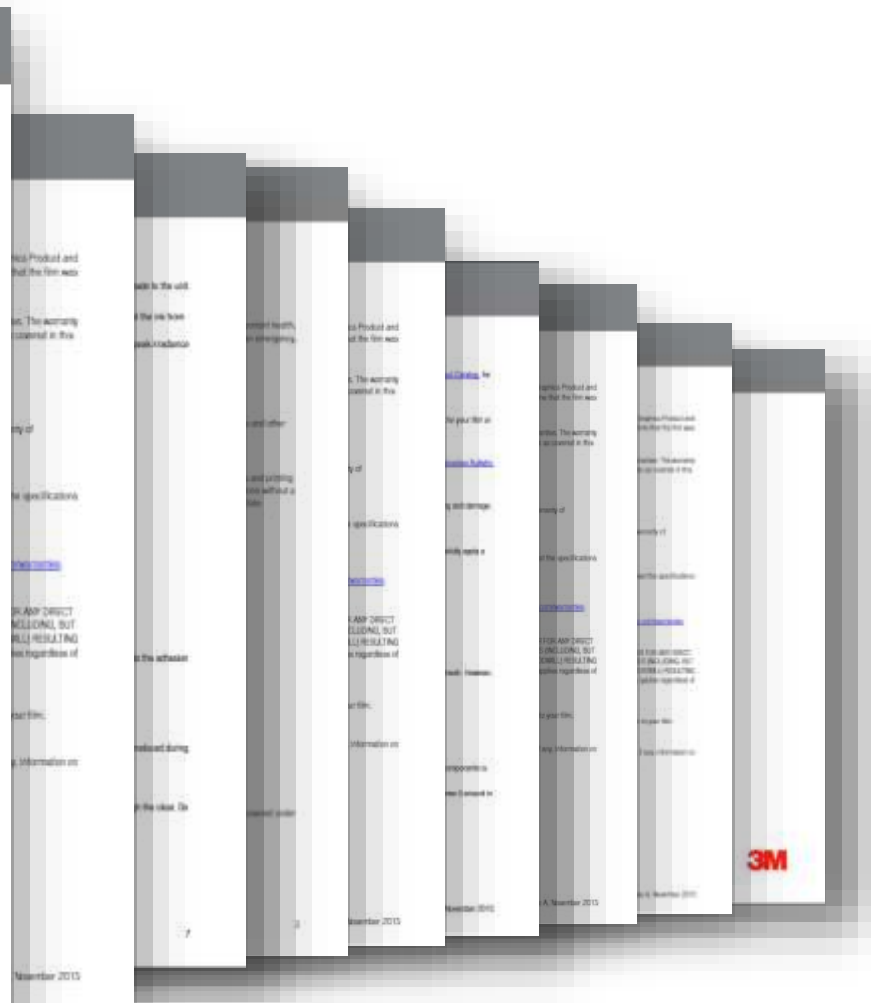
Product Bulletin 9760LX - Release A, November 2015



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.



3M™ MCS™ Warranty



Check 3M™ documentation on the 3M™ MCS™ Warranty

Each HP Latex printer/ink has its own document: “3M™ MCS™ Warranty – Latex Ink Matrix”

Printer Manufacturer	HP		HP		HP		HP		HP		HP	
	Printer Model	HP Latex 3600	HP Latex 3000/3100	HP Latex 360/370	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280
Printer Model	HP Latex 3600	HP Latex 3000/3100	HP Latex 360/370	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	
Ink Series	HP 3M 801 Latex Ink	HP 881 Latex Ink a 3M™ MCS™ Warranty Component	HP 831/HP 871 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	

Film	Notes	Graphic Protection	VEH			OUT			WIR			IN		
			VEH	OUT	WIR	VEH	OUT	WIR	VEH	OUT	WIR	VEH	OUT	WIR
LJ181		8518, 8519, 8520, 8915 1920DR 9760LX	5	3	—	5	3	—	5	3	—	5	3	—
			2	2	—	2	2	—	2	2	—	2	2	—
			5	3	—	5	3	—	5	3	—	5	3	—



3M™ MCS™ Warranty - Latex Inks Matrix
 IMPORTANT! Only graphics manufacturers having a current Certificate of 3M™ MCS™ Warranty are eligible to extend this Warranty to their customers. Finished Graphics Durability Period is stated in years for Vertical Graphics made with 3M Film, Inks and Graphic Protection using Approved Printers. Refer to the film's Product Bulletin for details and full trademark names, which can be viewed on-line by clicking the blue film number links. Also review the notes at the end of the matrix.

Printer Manufacturer	HP		HP		HP		HP		HP		HP	
	Printer Model	HP Latex 3600	HP Latex 3000/3100	HP Latex 360/370	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280
Printer Model	HP Latex 3600	HP Latex 3000/3100	HP Latex 360/370	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	
Ink Series	HP 3M 801 Latex Ink	HP 881 Latex Ink a 3M™ MCS™ Warranty Component	HP 831/HP 871 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	

Film	Notes	Graphic Protection	VEH			OUT			WIR			IN		
			VEH	OUT	WIR	VEH	OUT	WIR	VEH	OUT	WIR	VEH	OUT	WIR
LJ170Cv3	D	8518, 8519, 8520, 8915 8528, 8548G, 8549L 8900 1920DR 9760LX	6	4	2	8	6	4	2	8	6	4	2	8
			6	2	—	6	2	—	6	2	—	6	2	—
			3	1	—	3	1	—	3	1	—	3	1	—
			2	2	—	2	2	—	2	2	—	2	2	—

Printer Manufacturer	HP		HP		HP		HP		HP		HP	
	Printer Model	HP Latex 3600	HP Latex 3000/3100	HP Latex 360/370	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	
Printer Model	HP Latex 3600	HP Latex 3000/3100	HP Latex 360/370	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280	HP DesignJet L26100, L26500, L26500, Latex 210, 280, 280		
Ink Series	HP 3M 801 Latex Ink	HP 881 Latex Ink a 3M™ MCS™ Warranty Component	HP 831/HP 871 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component	HP 792 Latex Ink a 3M™ MCS™ Warranty Component		

Film	Notes	Graphic Protection	VEH			OUT			WIR			IN		
			VEH	OUT	WIR	VEH	OUT	WIR	VEH	OUT	WIR	VEH	OUT	WIR
Panagraphics III	H	3019, 3620, 3686G, 3690M 8518, 8519, 8520, 8915	—	4	—	—	4	—	—	—	4	—	—	
			—	3	—	—	3	—	—	—	3	—	—	

NOTES
 A Film L3600 with overlaminate 8548G or 8549L is for auto and waterproof wraps only.
 B Film L3600 is 2 years durability when applied to flat and simple curved surfaces, or 3M™ Flexible Substrate FS-1.
 C Film L3600 or L3700 may be applied to 3M™ Panagraphics III Wide-Web Flexible Substrates and the second number the horizontal durability on vehicle graphics.
 D For overlaminate 8528 or 8548G or 8549L or 8900, the first number represents the vertical durability and the second number the horizontal durability to avoid damaging the printer.
 E Be sure your printer is capable of supporting the width, weight and roll diameter of the flexible substrate to avoid damaging the printer.
IMPORTANT NOTE: Unless you are using 3M horizontal warranty overlaminate (8528, 8548G, 8549L, and 8900), you will only be eligible for a vertical warranty.
 DISCLAIMER: With the exception of 3M branded products, 3M does not represent that any printer or printer accessory recommended in 3M literature will meet customer requirements, any federal, state or local regulations, or any applicable safety standards. Such determination is the responsibility of the printer owner.
 VEH = Commercial Vehicle, Fleet Truck and Trailer, Bus, Personal Vehicles
 OUT = Outdoor Signs, OEM
 WIR = Watercraft or Railroad (Note for most films, this refers to Watercraft. For Reflective films, it refers to Railroad)
 IN = Indoor Signs
Warranty and Limited Liability: 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. All 3M products are warranted to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in the film or media's Product Bulletin. Also see 3M Graphics Warranties Brochure, which gives the terms, additional limitations of the warranty, if any, and limitations of liability.
 Trademarks: 3M and MCS are trademarks of 3M Company. All other trademarks are the property of their respective owners.



3M™ MCS™ Warranty



Check 3M™ documentation on the 3M™ MCS™ Warranty

It already includes the information on the new liquid laminate!



3M™ MCS™ Warranty - Latex Inks Matrix

IMPORTANT! Only graphics manufacturers having a current Certificate of 3M™ MCS™ Warranty are eligible to extend Finished Graphics Durability Period is stated in years for Vertical Graphics made with 3M Film, Inks and Graphics. Refer to the film's Product Bulletin for details and full trademark names, which can be viewed on-line by clicking on the link. Also review the notes at the end of the matrix.

Printer Manufacturer	HP	HP	HP	HP	HP
Printer Model	HP Latex 3500	HP Latex 3000/3100	HP Latex 360/370	HP DesignJet L26100, L26500, L26500, Latex 210, 260, 280	HP Design Softjet LX8 LX820, LX820
Ink Series	HP 3M 881 Latex Ink	HP 881 Latex Ink a 3M™ MCS™ Warranty Component	HP 831/HP 871 Latex Ink a 3M™ MCS™ Warranty Component	HP 752 Latex Ink a 3M™ MCS™ Warranty Component	HP LX811 a 3M™ MCS™ Warranty Component

Film	Notes	Graphic Protection	VEH	OUT	WIR	IN	VEH	OUT	WIR	IN	VEH	OUT	WIR	IN	VEH	OUT	WIR	IN	VEH	OUT	WIR	IN				
IJ170Cv3	D	8518, 8519, 8520, 8915	6	4	2	8	6	4	2	8	6	4	2	8	6	4	2	8	6	4	2	8	6	4		
		8528, 8548G, 8549L	6/2	4	2	8	6/2	4	2	8	6/2	4	2	8	6/2	4	2	8	6/2	4	2	8	6/2	4		
		8900	3/1	—	—	—	3/1	—	—	—	3/1	—	—	—	3/1	—	—	—	3/1	—	—	—	3/1	—	—	
		1920DR	2	2	—	3	2	2	—	3	2	2	—	3	2	2	—	3	2	2	—	3	2	2	—	3
		9760LX	5	3	—	5	5	3	—	5	5	3	—	5	—	—	—	—	—	—	—	—	—	—	—	—
IJ180 IJ180C IJ180Cv3	D	8518, 8519, 8520, 8915	6	4	2	8	6	4	2	8	6	4	2	8	6	4	2	8	6	4	2	8	5	4	2	7
		8528, 8548G, 8549L	6/2	4	2	8	6/2	4	2	8	6/2	4	2	8	6/2	4	2	8	6/2	4	2	8	5/2	4	2	7
		8900	3/1	—	—	—	3/1	—	—	—	3/1	—	—	—	3/1	—	—	—	3/1	—	—	—	3/1	—	—	—
		1920DR	2	2	—	3	2	2	—	3	2	2	—	3	2	2	—	3	2	2	—	3	2	2	—	3
		9760LX	5	3	—	5	5	3	—	5	5	3	—	5	—	—	—	—	—	—	—	—	—	—	—	—
IJ380Cv3	A, D	8548G, 8549L	6/2	—	2	—	6/2	—	2	—	6/2	—	2	—	6/2	—	2	—	6/2	—	2	—	5/2	—	2	—
		1920DR	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—	2	—	—	—
LX480Cv3	D	8518, 8519, 8520, 8915	6	4	2	8	6	4	2	8	6	4	2	8	6	4	2	8	6	4	2	8	5	4	2	7
		8528, 8548G, 8549L	6/2	4	2	8	6/2	4	2	8	6/2	4	2	8	6/2	4	2	8	6/2	4	2	8	5/2	4	2	7
		1920DR	2	2	—	3	2	2	—	3	2	2	—	3	2	2	—	3	2	2	—	3	2	2	—	3
IJ8150	D	8518, 8519, 8520, 8915, 8914	3	3	—	5	3	3	—	5	3	3	—	5	3	3	—	5	3	3	—	5	3	3	—	5
		8528	3/2	3	—	5	3/2	3	—	5	3/2	3	—	5	3/2	3	—	5	3/2	3	—	5	3/2	3	—	5
		1920DR	2	2	—	3	2	2	—	3	2	2	—	3	2	2	—	3	2	2	—	3	2	2	—	3

Film	Notes	Graphic Protection	VEH	OUT	WIR	IN
IJ170Cv3	D	8518, 8519, 8520, 8915 8528, 8548G, 8549L 8900 1920DR 9760LX	6	6/2	3/1	2

9760LX



Remember!

Warranty extended to 6 years with film over-laminate & new liquid over-laminate with 5-year warranty

6 Up to
years,
with film lamination



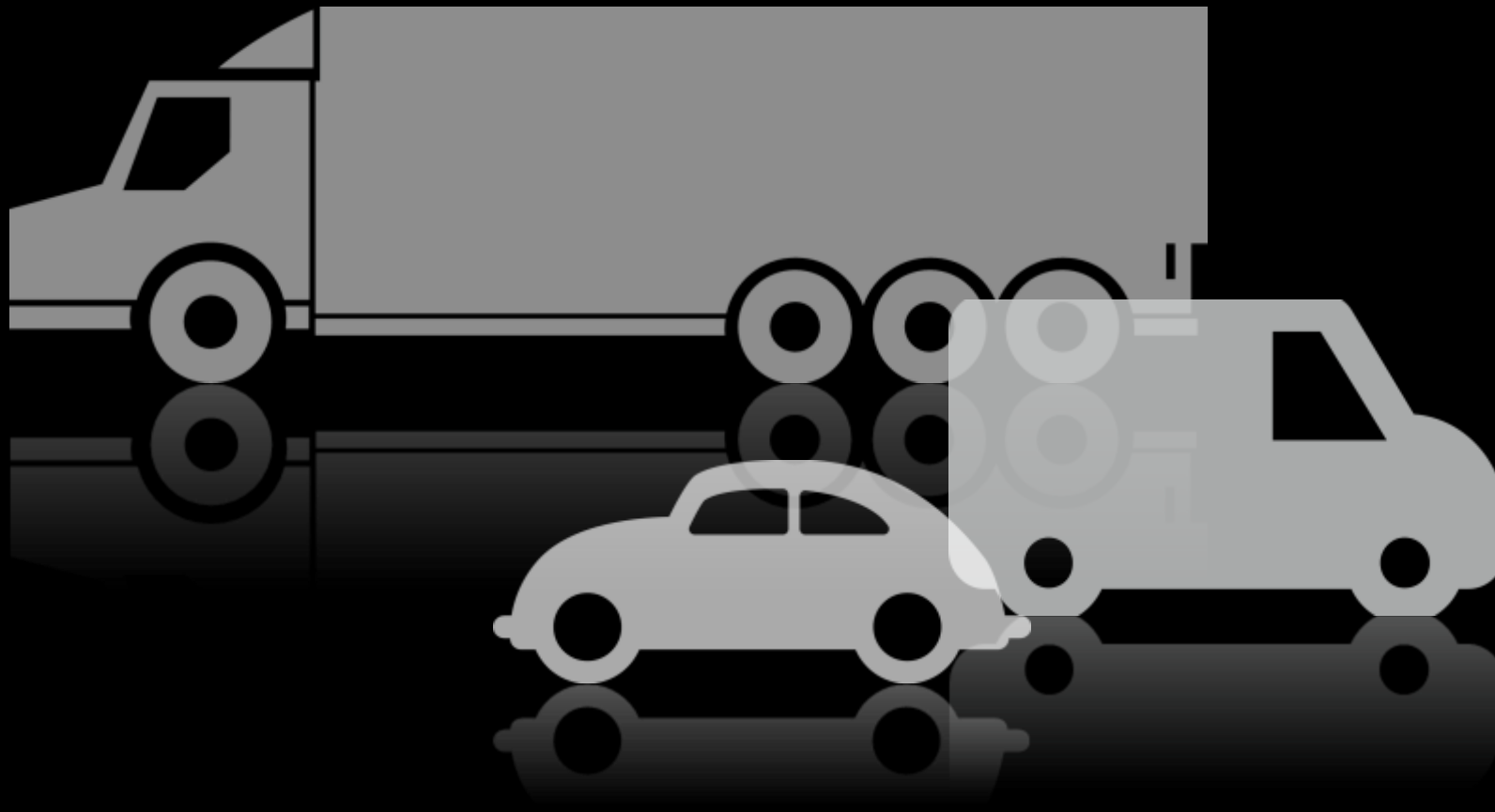
Car wrapping

5 Up to
years,
with liquid lamination



Fleet graphics





HP Latex Technology

