## **3M Graphics Market**

Product Catalog Inkjet Printing Materials and Solid Color Films October 2014



# Products that inspire Success







# The Surface Just the

# Innovations that Move an Industry

3M believes in helping companies build and protect their brands. That's why for more than 50 years 3M has been trusted by the world's largest companies to provide practical products that help companies succeed. Our track record of innovation and partnership in the visual communications industry means one thing: you can count on us to help you grow your business.

# Products that Perform

3M customers dare to lead the industry because they know they can rely on our products' performance. 3M uses the industry's most rigorous tests to ensure our products work with all related system components to produce graphics of unsurpassed quality, consistency and durability. Our comprehensive warranties prove our level of confidence.

# Technology that Advances Your Business

Relentlessly pursuing new ideas is in 3M's DNA. Our research and development teams, combined with our 40+ technology platforms, are a powerful force of ingenuity that consistently creates new opportunities for the industry and your business's growth.

is Beginning

#### **Comprehensive Solutions**

#### **Greater versatility**

- Turn almost any surface into a brand-building environment
- Satisfy a variety of customer requirements and budgets

3M<sup>™</sup> Envision<sup>™</sup>, Scotchcal<sup>™</sup>, Controltac<sup>™</sup> and Scotchlite<sup>™</sup> Films

#### **Faster installation and removal**

- Increase productivity with fewer failures using the 3M patented adhesive system, films and application tools
- Benefit from easy, bubble-free installation for challenging applications

*3M<sup>™</sup> Envision<sup>™</sup> and Controltac<sup>™</sup> Graphic Films with Comply<sup>™</sup> v3 Adhesive* 

#### Good looks that last longer

- Offer customers a variety of graphic protection options such as graffiti protection, slip-resistance and gloss retention
- Gain the quality advantage of having high conformability, flexibility, durability and preferred finish

3M<sup>™</sup> Envision<sup>™</sup> and Scotchcal<sup>™</sup> Overlaminates and 3M<sup>™</sup> Clear Coats

 Provide the confidence of having the longest outdoor durability and most flexible inkjet ink solutions

3M™ Digital Inks

#### **Greener options**

- Offer environmentally-friendly products that don't sacrifice performance
- Use leading-edge technology that's transforming the industry
- Help your customers use less energy or earn LEED<sup>®</sup> credits

These products are identified with a leaf

#### **Greater visibility**

- Ensure your customers increase their impressions with greater nighttime visibility
- Deliver the assurance of being seen
- 3M<sup>™</sup> Scotchlite<sup>™</sup> Reflective Graphic Films



## **Applications at a Glance**

nkia	+				A	PPL	.ICA	TIO	NS					DESCRIPTION	
nkje Vledi	IJ Media (JJ = forward wound, unnotched core)	Fleet (commercial trailer, truck, tractor) and Vehicle Graphics*	Vehicle Wraps	Watercraft	Transit (bus, passenger train)	Label (warning, informational)	Signage – Backlit	Signage – Non-Backlit	Awning	Smooth Walls	Textured Walls and Surfaces	Window or Glass	Floor		Recommended Graphic Protection
SV480Cv3	3M™ Envision™ Print Wrap Film SV480Cv3													Goes beyond being just non-PVC, with a breakthrough boost in performance. Outperforms films IJ180Cv3, IJ380Cv3 and IJ8624.	8548G, 851 8519, 8520, 8 8915, 1920D 9740i
LX480Cv3	3M™ Envision™ Print Wrap Film LX480Cv3			•	•									Goes beyond being just non-PVC, with a breakthrough boost in performance. Outperforms films IJ180Cv3, IJ380Cv3 and IJ8624.	8548G, 851 8519, 8520, 8 8915, 1920D 9740i
IJ380Cv3	3M <sup>™</sup> Controltac <sup>™</sup> Wrap Film with Comply <sup>™</sup> v3 Adhesive IJ380Cv3													Excellent conformability and lifting resistance on wraps when using a solvent inkjet printer.	8548G, 1920DR
IJ180C	3M <sup>™</sup> Controltac <sup>™</sup> Graphic Film with Comply <sup>™</sup> Adhesive IJ180C													The classic vehicle wrap film with the original 3M™ Comply™ Adhesive technology.	1920DR, 854
IJ180Cv3	3M <sup>™</sup> Controltac <sup>™</sup> Graphic Film with Comply <sup>™</sup> v3 Adhesive IJ180Cv3													Industry standard for vehicle and boat graphics providing air release, snap-up, slideability and removeability.	8518, 8519, 8 8528, 8530, 8
IJ180	3M™ Controltac™ Graphic Film IJ180													Used for large wall murals providing easy installation and reliable adhesion.	8909, 8915, 9
IJ181	3M™ Controltac™ Graphic Film IJ181													Designed for use on stainless steel applications.	1920DR, 85 8519, 8520, 8 8909, 8915, 9
IJ170Cv3	3M™ Scotchcal <sup>™</sup> Graphic Film with Comply <sup>™</sup> v3 Adhesive IJ170Cv3				•									Value priced solution with Comply <sup>™</sup> Adhesive v3 air release system for vehicle graphics.	1920DR, 854 8518, 8519, 8 8528, 8530, 8 8909, 8915, 9
IJ8150	3M <sup>™</sup> Scotchcal <sup>™</sup> Clear View Graphic Film IJ8150		■*		*									Optical clarity in a printable, durable film.	8518, 8519, 8 8528, 8914, 8 1920DR, 97
IJ3552C	3M <sup>™</sup> Controltac <sup>™</sup> Changeable Graphic Film with Comply <sup>™</sup> Adhesive IJ3552C													The ultimate in removability. Use this for short-term vehicle wraps when you still need slideability, repositionability and air release.	1920DR, 85 8519, 8520, 8 9740i
8170-P40 8170-P50	3M <sup>™</sup> Scotchcal <sup>™</sup> Perforated Window Graphic Film 8170-P40 and 8170-P50													Great conformability and durability on vehicle and building windows. Only cast window films on the market. 8170-P50 has 50% perforation and 8170-P40 has 40% perforation.	8518, 891
IJ8624	3M™ Scotchcal™ Graphic Film for Textured Surfaces IJ8624													Designed for use on textured surfaces like brick, industrial stucco and cinderblock when inkjet solvent printing.	8524
IJ3630-20	3M <sup>™</sup> Scotchcal <sup>™</sup> Translucent Graphic Film IJ3630-20													Create vibrant backlit graphics with this durable translucent film.	1920DR, 36 3620, 8518, 8
IJ3730	3M <sup>™</sup> Envision <sup>™</sup> Translucent Film IJ3730-50 and IJ3730-60													Translucent film designed for LED illuminated signage. Maximizes transmission for brighter graphics and eliminates hot spots.	0500 0050
IJ3650-10	3M™ Scotchcal™ Graphic Film IJ3650-10													Reliable permanent cast film for long-term signs and graphics.	1920DR, 36 3620, 3658
IJ3650-114	3M <sup>™</sup> Scotchcal <sup>™</sup> Graphic Film IJ3650-114													Reverse image on this clear film for second surface graphics.	3660M, 8518, 8520, 8915, 9
IJ160C	3M <sup>™</sup> Controltac <sup>™</sup> Graphic Film with Comply <sup>™</sup> Adhesive IJ160C													Great for short-term vehicle graphics that demand slideability, repositionability and bubble-free installation.	1920DR, 85 8519, 8520, 8
IJ160	3M <sup>™</sup> Controltac <sup>™</sup> Graphic Film IJ160													Great for flat application graphics that require slideability.	8530, 8915, 9
3545C	3M <sup>™</sup> Controltac <sup>™</sup> Removable Graphic Film with Comply <sup>™</sup> Adhesive 3545C				-	•								Environmentally friendly polyolefin film with no polyvinylchloride or monomeric plasticizers in its construction and made with less solvent in manufacturing when compared to traditional solvent-based adhesive products.	1920DR, 85 8519, 8520, 8 8909, 891
IJ3555	3M™ Scotchcal <sup>™</sup> Changeable Graphic Film IJ3555													The ultimate in removability. Use this film for short-term promotional graphics.	1920DR, 85 8519, 8520, 8 8915, 974
IJ162-10	3M™ Controltac™ Graphic Film IJ162-10 3M™ Controltac™ Graphic													Create eye-catching floor graphics with this reliable and safe floor graphic product. This clear floor graphic film allows flexibility for the most	3645, 364
IJ162-114	Film IJ162-114													unique designs.	3619, 3620, 3
Panagraphics III	3M™ Panagraphics™ III Wide Width Flexible Substrate													Wide width substrate for many types of signs.	3660M, 85 8519, 852
FS-1 NEW	3M <sup>™</sup> Envision <sup>™</sup> Flexible Substrate FS-1													The flexible substrate optimized for use with LEDs.	3619, 3620, 3 3660M, 8518,

\* Film IJ8150 is only recommended for use on windows for this application.



#### 3M products are designed with our printing partners in mind.

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Refi Med	ective ia	Heet (commercial trailer, truck, tractor) and Vehicle Graphics	/ehicle Wraps	Vatercraft	ransit (bus, passenger train)	-abel (warning, informational)	Signage – Backlit	Signage – Backlit and Thermoformed	Signage – Non-Backlit	Awning	Banner	Smooth Walls	fextured Walls and Surfaces	Windows or Glass	Hoor		Accommended Graphic Protection
IJ680CR	3M <sup>™</sup> Scotchlite <sup>™</sup> Removable Reflective Graphic Film with Comply <sup>™</sup> Adhesive IJ680CR		-			•					_				_	Leading reflective film with slideability, air release and removability for easier, faster, bubble-free installations and removal.	
IJ680	3M <sup>™</sup> Scotchlite <sup>™</sup> Reflective Graphic Film IJ680															Industry standard reflective film features slideability and increases graphic impressions by offering 24/7 visibility.	
IJ5100R	3M <sup>™</sup> Scotchlite <sup>™</sup> Reflective Graphic Film IJ5100R															Removable reflective graphic film is ideally suited for cut letters, decals, vehicle markings and non-regulated signs.	1920DR, 8518, 8519, 9740i
IJ5100	3M <sup>™</sup> Scotchlite <sup>™</sup> Reflective Graphic Film IJ5100															Permanent, engineer grade reflective film designed for excellent cutting and weeding.	
IJ5000	3M <sup>™</sup> Scotchlite <sup>™</sup> Reflective Graphic Film IJ5000															Perfect reflective film choice for short-term messages.	

## **Overlaminates** for Protection of Inkjet Printed Media

															-	
8549L	3M <sup>™</sup> Envision <sup>™</sup> Luster Wrap Overlaminate 8549L															Goes beyond being just non-PVC, with a breakthrough boost in performance. Outperforms overlaminates 8519, 8524 and 8528.
8548G	3M <sup>™</sup> Envision <sup>™</sup> Gloss Wrap Overlaminate 8548G															Goes beyond being just non-PVC, with a breakthrough boost in performance. Outperforms overlaminates 8518, 8524, 8528 and 8580.
3658G	3M <sup>™</sup> Scotchcal <sup>™</sup> Gloss Overlaminate 3658G															High protection from UV fading, dirt, easy to clean; thermoformable on plastic substrates; use on translucent films 3630 & 3730 and digital or screen printed Panagraphics III substrate.
3660M	3M <sup>™</sup> Scotchcal <sup>™</sup> Matte Overlaminate 3660M															Matte version of 3658G.
8528	3M <sup>™</sup> Scotchcal <sup>™</sup> Gloss Overlaminate 8528															A highly durable overlaminate. Lasting protection from UV light and acid dew.
8518	3M <sup>™</sup> Scotchcal <sup>™</sup> Gloss Overlaminate 8518										•					Offers high gloss in a highly conformable overlaminate. Ideal for vehicle wraps to achieve the wet paint look.
8519	3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 8519															Industry standard for a flexible, conformable cast overlaminate.
8520	3M <sup>™</sup> Scotchcal <sup>™</sup> Matte Overlaminate 8520															Matte finish is perfect for indoor use or to provide a unique look to vehicle wraps.
8524	3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 8524															Designed to protect graphics made with film IJ8624 for textured surfaces.
8914	3M <sup>™</sup> Scotchcal <sup>™</sup> Optically Clear Overlaminate 8914															Use on window graphics made with film IJ8171 where optical clarity is required.
8915	3M <sup>™</sup> Scotchcal <sup>™</sup> Ultra-Matte Overlaminate 8915															Provides the ultimate matte finish.
8908	3M™ Scotchcal™ Luster Overlaminate 8908													•		Environmentally friendly polyolefin film with no polyvinylchloride or monomeric plasticizers in its construction and made with less solvent in manufacturing when compared to traditional solvent-based adhesive products. Luster finish.
8909	3M™ Scotchcal™ Matte Overlaminate 8909													•		Environmentally friendly polyolefin film with no polyvinylchloride or monomeric plasticizers in its construction and made with less solvent in manufacturing when compared to traditional solvent-based adhesive products. Matte finish.
3645	3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 3645															Slip-resistant overlaminate designed specifically for floor graphics but used for table-top graphics as well.
3619	3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 3619															Luster finish overlaminate for digitally imaged backlit sign faces.
3620	3M <sup>™</sup> Scotchcal <sup>™</sup> Matte Overlaminate 3620															Matte finish overlaminate for digitally imaged backlit sign faces.
	85486   36586   3660M   8528   8518   8519   8520   8524   8914   8908   8909   3645   3619	B349LNewOverlaminate 8549L8548G3MT** Envision** Gloss Wrap Overlaminate 8548G3658GNew3660M3MT** Scotchcal** Gloss Overlaminate 3660M85283MT** Scotchcal** Matte Overlaminate 852885183MT** Scotchcal** Luster Overlaminate 851885193MT** Scotchcal** Luster Overlaminate 851985203MT** Scotchcal** Luster Overlaminate 851985243MT** Scotchcal** Luster Overlaminate 852489143MT** Scotchcal** Uttra-Matte Overlaminate 891489153MT** Scotchcal** Uttra-Matte Overlaminate 891589083MT** Scotchcal** Luster Overlaminate 891586453MT** Scotchcal** Luster Overlaminate 891536453MT** Scotchcal** Luster Overlaminate 891536453MT** Scotchcal** Luster Overlaminate 891536453MT** Scotchcal** Luster Overlaminate 890836453MT** Scotchcal** Luster Overlaminate 890936453MT** Scotchcal** Luster Overlaminate 8909	B349LNEW Overlaminate 8549LImage: Stability of the st	B349LNEW Overlaminate 8549LImage: Second	B349LNew Overlaminate 8549LImage: Constraints Overlaminate 8548GImage: Constraints Overlaminate 8548GImage: Constraints Overlaminate 8548GImage: Constraints Overlaminate 8568GImage: Constraints Overlaminate 8660MImage: Constraints Overlaminate 8660MImage: Constraints Overlaminate 8660MImage: Constraints Overlaminate 8660MImage: Constraints Overlaminate 8660MImage: Constraints Overlaminate 8660MImage: Constraints Overlaminate 8568BImage: Constraints Overlaminate 8508Image: Constraints Overlaminate 8518Image: Constraints Overlaminate 8519Image: Constraints Overlaminate 8519Image: Constraints Overlaminate 8519Image: Constraints Overlaminate 8519Image: Constraints 	3343LNEWOverlaminate 8549LIIII8548G3MT Envision" Gloss Wrap Overlaminate 8548GIIII3658GNEW3MT Scotchcal" Gloss Overlaminate 3660MIIII3660MNEW3MT Scotchcal" Matte Overlaminate 3660MIIII85283MT Scotchcal Gloss Overlaminate 8528IIIII85183MT Scotchcal Gloss Overlaminate 8519IIIIII85193MT Scotchcal Gloss Overlaminate 8519IIIIIII85203MT Scotchcal Gloss Overlaminate 8519II	8343L NEW Overlaminate 8549L Image: Section 2000 and the se	0verlaminate 8549L 0verlaminate 8549L 0	36343L Vew Overlaminate 8549L Image: Section of the section of th	8393L NEW Overlaminate 8549L Image: Comparison of Closs Wrap Overlaminate 8548G   8548G 3M <sup>IIII</sup> Envision <sup>IIII</sup> Gloss Wrap Overlaminate 3658G Image: Comparison of Closs Wrap Overlaminate 3658G Image: Comparison of Closs Wrap Overlaminate 3658G   3660M NEW 3M <sup>IIIII</sup> Scotchcal <sup>IIII</sup> Gloss Overlaminate 3660M Image: Comparison of Closs Overlaminate 3660M Image: Comparison of Closs Overlaminate 3660M   3660M Image: Comparison of Closs Overlaminate 8528 Image: Comparison of Closs Overlaminate 8528 Image: Comparison of Closs Overlaminate 8518   8518 3M <sup>IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII</sup>	8393L NEW Overlaminate 8549L Image: Comparison of Co	3349L NW Overlaminate 8549L Image: Constraints and the state s	8349L NW Overlaminate 8549L Image: Solution of Sol	83491 NWW Overlaminate 85491 Image: Contract of Co	83491 NW Overlaminate 85491 Image: Contract of Con	8349. Vertaminate 8549. Image: Source of the second s

## **High Performance Products — Film Characteristics**

Č			ABII AND	.ITY			ΔΡ	PI I	CATI	ION				FILM CHARACTI	RIS	TICS				
Inkio	+		RAN	TIES					ACE	S	_			CTERISTICS		F	ILM	OPA	CIT	7
Inkje Medi	L A IJ Media (IJ = forward wound, unnotched core)	Expected Performance Life, Unprinted (Years)+	3M <sup>™</sup> MCS <sup>™</sup> Warranty	Performance Guarantee	Flat	Flat with Rivets	Corrugated	Simple Curves	Compound Curves	Deep Channels and Concave Surfaces	Flexible Substrates	Textured Wall and Surfaces	Film Material	Cast or Non-Cast	Film Thickness (mils)	Face Finish ( <u>G</u> loss, <u>L</u> uster, <u>M</u> atte)	Opaque	Translucent	Transparent	Perforated
SV480Cv3	3M <sup>™</sup> Envision <sup>™</sup> Print Wrap Film SV480Cv3	11	•										High Performance non-PVC	High Performance non-PVC	2	L				
LX480Cv3	3M <sup>™</sup> Envision <sup>™</sup> Print Wrap Film LX480Cv3	11	•										High Performance non-PVC	High Performance non-PVC	2	L				
IJ380Cv3	3M <sup>™</sup> Controltac <sup>™</sup> Wrap Film with Comply <sup>™</sup> v3 Adhesive IJ380Cv3	10	•			•		•					Vinyl	Cast	2	L	•			
IJ180C	3M <sup>™</sup> Controltac <sup>™</sup> Graphic Film with Comply <sup>™</sup> Adhesive IJ180C	10	•					•					Vinyl	Cast	2	L				
IJ180Cv3	3M <sup>™</sup> Controltac <sup>™</sup> Graphic Film with Comply <sup>™</sup> v3 Adhesive IJ180Cv3	10	•					•					Vinyl	Cast	2	L	•			
IJ180	3M™ Controltac™ Graphic Film IJ180	10	•		•	•		•					Vinyl	Cast	2	L	•			
IJ181	3M™ Controltac™ Graphic Film IJ181	10	•	-	•	•		•					Vinyl	Cast	2	L	•			
IJ170Cv3	3M <sup>™</sup> Scotchcal <sup>™</sup> Graphic Film with Comply <sup>™</sup> v3 Adhesive IJ170Cv3	10											Vinyl	Cast	2	L				
IJ8150	3M <sup>™</sup> Scotchcal <sup>™</sup> Clear View Graphic Film IJ8150	7											Vinyl	Cast	2	G				
IJ3552C	3M <sup>™</sup> Controltac <sup>™</sup> Changeable Graphic Film with Comply <sup>™</sup> Adhesive IJ3552C	8	•										Vinyl	Cast	2	L				
8170-P40 8170-P50	3M <sup>™</sup> Scotchcal <sup>™</sup> Perforated Window Graphic Film 8170-P40 and 8170-P50	3											Vinyl	Cast	4	G				
IJ8624	3M <sup>™</sup> Scotchcal <sup>™</sup> Graphic Film for Textured Surfaces IJ8624	7											Vinyl	Cast	2	L				
IJ3630-20	3M <sup>™</sup> Scotchcal <sup>™</sup> Translucent Graphic Film IJ3630-20	7											Vinyl	Cast	2	М				
IJ3730-50	3M <sup>™</sup> Envision <sup>™</sup> Translucent Film IJ3730-50	7	•		•			•			•		Vinyl	Cast	2	М		•		
IJ3730-60	3M <sup>™</sup> Envision <sup>™</sup> Translucent Film IJ3730-60	7	•		•			•			•		Vinyl	Cast	2	М		•		
IJ3650-10	3M <sup>™</sup> Scotchcal <sup>™</sup> Graphic Film IJ3650-10	10	•					•					Vinyl	Cast	2	L				
IJ3650-114	3M <sup>™</sup> Scotchcal <sup>™</sup> Graphic Film IJ3650-114	8	•					•					Vinyl	Cast	2	L				
IJ160C	3M <sup>™</sup> Controltac <sup>™</sup> Graphic Film with Comply <sup>™</sup> Adhesive IJ160C	7	•					•					Vinyl	Non-Cast	4	М				
IJ160	3M™ Controltac™ Graphic Film IJ160	7	•										Vinyl	Non-Cast	4	М	•			
35450	3M <sup>™</sup> Controltac <sup>™</sup> Removable Graphic Film with Comply <sup>™</sup> Adhesive 3545C	3	•					•					Polyolefin	Non-Cast	4	М	•			
IJ3555	3M <sup>™</sup> Scotchcal <sup>™</sup> Changeable Graphic Film IJ3555	2	•		•			•					Vinyl	Non-Cast	4	М				
IJ162-10	3M <sup>™</sup> Controltac <sup>™</sup> Graphic Film IJ162-10	1	•	•	•								Vinyl	Non-Cast	4	М	•			
IJ162-114	3M™ Controltac™ Graphic Film IJ162-114	1	•		•								Vinyl	Non-Cast	4	М				
Panagraphics III	3M <sup>™</sup> Panagraphics <sup>™</sup> III Wide Width Flexible Substrate	6	•										Vinyl	_	20	L		•		
FS-1 NEW	3M <sup>™</sup> Envision <sup>™</sup> Flexible Substrate FS-1	6											Vinyl		<b>20</b>					

+ Maximum expected outdoor durability of unprinted films. For actual warranties of specific film, ink and overlaminate combinations, refer to the warranty matrices in the appropriate base film 3M Product Bulletin.



#### 3M products are designed with our printing partners in mind.

COLOR			FEATU	RES _		R	EMO													
				Y- Y		MAG Meti	ing Hod			JTTIN Etho		LIN	IER	CORE	AVAIL	ABILITY				
Adhesive Color	Pressure-Sensitive	Pressure-Activated	Pressure-Sensitive with Non-visible Air Release Channels	Pressure-Activated with Air Release Channels	Pressure-Activated with Non-visible Air Release Channels	Permanent	Removable	Changeable	Inkjet – Solvent/ecoSolvent	Inkjet – UV	Inkjet – Latex	Inkjet – Aqueous	Electronic Cut	Kiss Cut & Die Cut	Hand Cut	Polyethylene-coated Paper	Polyester Layflat	Core Sizes (in inches)	Roll Widths (in inches)	Roll Lengths (in yards unless otherwise specified)
Gray																		3, 6	48, 54	25/50/100/150/200
Gray																		3, 6	48, 54	25/50/100/150/200
Gray																•		3	54	25/50
Gray																•		3, 6	30, 36, 48, 54, 60	25/50/100/150/200
Gray																		3, 6	30, 36, 48, 54, 60	25/50/100/150/200
Gray																•		3, 6	30, 36, 48, 54, 60	25/50/100/150/200
Gray																•		3, 6	48	25/50/100/150/200
Gray													■*					3, 6	54, 60	25/50/100/150/200
Clear													■*					3	54, 60	25/50
Gray								•						•		•		3, 6	48, 54, 60	50/100/150/200
Clear																•		3, 6	36, 53.5	10/25/50
Gray																•		3, 6	<u>30</u> 54	50/100/150/200 25/50/100/200
Clear																		3, 6	48, 54, 60	50/100/150/200
Clear													•					3, 6	54	50/100/150/200
Clear										•			•				•	3, 6	54	50/100/150/200
Gray																		3, 6	30, 48, 54, 60	25/50/100/150/200
Clear																		3, 6	48, 54, 60	50
Gray																		3, 6	30, 48, 54, 60	50/100/150/200
Gray																		3, 6	30, 48, 54, 60	50/100/150/200
Gray													*		•	•		3, 6	48, 54	50/100
Gray																		3, 6	30, 48, 54, 60	50/100/150/200
Gray									•	•	•		•			•		3, 6	48, 54, 60	25/50/100/150/200
Clear													•					3, 6	48, 54	50
																		3	59, 79, 98, 102, 126, 150, 165	164 ft.
																		3	79, 98, 102, 126, 150, 165	164 ft.

\* Not for prespaced graphics

## High Performance Products — Film Characteristics

		וווח	RABIL	ITV									Fi	ILM CHARACTER	ISTIC	S		
			AND RRAN					LICA RFA(						FILM TRUCTION			ISUA PER1	
Refl Mec	ective lia	Expected Performance Life, Unprinted (Years)+	3M <sup>™</sup> MCS <sup>™</sup> Warranty	Performance Guarantee	Flat	Flat with Rivets	Corrugated	Simple Curves	Compound Curves	Deep Channels and Concave Surfaces	Flexible Substrates	Textured Wall and Surfaces	Film Material	Cast or Non-Cast	Film Thickness (mils)	Face Finish ( <u>G</u> loss, <u>L</u> uster, <u>M</u> atte)	Retro-Reflective	Transparent
IJ680CR	3M <sup>™</sup> Scotchlite <sup>™</sup> Removable Reflective Graphic Film with Comply <sup>™</sup> Adhesive IJ680CR	9		-	•	-	•	-					Vinyl	N/A	7	L	•	
IJ680	3M <sup>™</sup> Scotchlite <sup>™</sup> Reflective Graphic Film IJ680	9				•							Vinyl	N/A	7	L	-	
IJ5100R	3M <sup>™</sup> Scotchlite <sup>™</sup> Reflective Graphic Film IJ5100R	7				•							Vinyl	N/A	7	L	-	
IJ5100	3M <sup>™</sup> Scotchlite <sup>™</sup> Reflective Graphic Film IJ5100	7				•							Vinyl	N/A	7	L	-	
IJ5000	3M <sup>™</sup> Scotchlite <sup>™</sup> Reflective Graphic Film IJ5000	1.5											Vinyl	N/A	6	L		

# **Overlaminates** for Protection of Inkjet Printed Media

2 G 1 G	•	L	2	High Performance	High Performance			_		_		_			3M <sup>™</sup> Envision <sup>™</sup> Luster Wrap	
1 G				non-PVC	non-PVC	•								9	0verlaminate 8549L	8549L
		G	2	High Performance non-PVC	High Performance non-PVC									9	<b>8548G</b> 3M <sup>™</sup> Envision <sup>™</sup> Gloss Wrap Overlaminate 8548G	8548G
1 G		G	1	Cast	Vinyl									9	<b>8528</b> 3M <sup>™</sup> Scotchcal <sup>™</sup> Gloss Overlaminate 8528	8528
		G	1	Cast	Vinyl			•			•			7	<b>8580</b> 3M <sup>™</sup> Scotchcal <sup>™</sup> Gloss Overlaminate 8580	8580
2 G		G	2	Cast	Vinyl									8	<b>8518</b> 3M <sup>™</sup> Scotchcal <sup>™</sup> Gloss Overlaminate 8518	8518
2 L		L	2	Cast	Vinyl									8	<b>8519</b> 3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 8519	8519
2 M		М	2	Cast	Vinyl				•					8	<b>8520</b> 3M <sup>™</sup> Scotchcal <sup>™</sup> Matte Overlaminate 8520	8520
2 L		L	2	N/A	Plastic									7*	<b>8524</b> 3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 8524	8524
2 G		G	2	Cast	Vinyl									8	<b>8914</b> 3M <sup>™</sup> Scotchcal <sup>™</sup> Optically Clear Overlaminate 8914	8914
2 M		М	2	Cast	Vinyl				•					8	<b>8915</b> 3M <sup>™</sup> Scotchcal <sup>™</sup> Ultra-Matte Overlaminate 8915	8915
2.5 L		L	2.5	Non-Cast	Polyolefin						•			1	8908 3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 8908	8908
2.5 M		М	2.5	Non-Cast	Polyolefin									1	8909 3M <sup>™</sup> Scotchcal <sup>™</sup> Matte Overlaminate 8909	8909
8 L		L	8	Cast	Vinyl									1	<b>3645</b> 3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 3645	3645
2 L		L	2	Cast	Vinyl									6	<b>3619</b> 3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 3619	3619
2 M		М	2	Cast	Vinyl									6	<b>3620</b> 3M <sup>™</sup> Scotchcal <sup>™</sup> Matte Overlaminate 3620	3620
4 G		G	4	Non-Cast	Vinyl									3 mo	<b>3648</b> 3M <sup>™</sup> Scotchcal <sup>™</sup> High Gloss Overlaminate 3648	3648
2 G		G	2	Cast	Vinyl									9	<b>3658G</b> NEW SCotchcal <sup>™</sup> Gloss Overlaminate 3658G	3658G
2 M		М	2	Cast	Vinyl				•					9	3660M New 3M <sup>™</sup> Scotchcal <sup>™</sup> Matte Overlaminate 3660M	3660M New
8 L 2 L 2 M 4 G 2 G		L L G G	8 2 2 4 2	Cast Cast Cast Non-Cast Cast	Vinyl Vinyl Vinyl Vinyl Vinyl		•		•	-	•		•	1 6 3 mo 9	3809 Overlaminate 8909   3645 3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 3645   3619 3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 3619   3620 3M <sup>™</sup> Scotchcal <sup>™</sup> Matte Overlaminate 3620   3648 3M <sup>™</sup> Scotchcal <sup>™</sup> High Gloss Overlaminate 3648   36586 NEW   3M <sup>™</sup> Scotchcal <sup>™</sup> High Gloss Overlaminate 3648   36586 NEW   3M <sup>™</sup> Scotchcal <sup>™</sup> Matte	3645 3619 3620 3648 36586 NEW

\* When used on a textured surface, expected life guidelines remain greater than two years indoors and up to six months outdoors. Graphics can perform much longer in drier, temperate climates. † Maximum expected outdoor durability of unprinted films. For actual warranties of specific film, ink and overlaminate combinations, refer to the warranty matrices or the appropriate base film 3M Product Bulletin.

#### 3M products are designed with our printing partners in mind.

	ADHE	SIVE	CHA	RACTE	RISTIC	s		INK												
COL	OR	FE	ATUR	ES		10V- LITY	CO	IN MPA	IK TIBIL	ITY		CUT Met	TING HOD			LINEF	8	CORE		AVAILABILITY
Adhesive Color		Pressure-Sensitive	Pressure-Activated	Pressure-Activated with Air Release Channels	Permanent	Removable	Inkjet – Solvent/ecoSolvent	Inkjet – UV	Inkjet – Latex	Inkjet – Aqueous	Electronic Cut	Kiss Cut	Die Cut	Hand Cut	Kraft Paper	Polyethylene-coated Paper Layflat	Polyester Layflat	Core Sizes (in inches)	Roll Widths (in inches)	Roll Lengths (in yards unless otherwise specified)
Clea	ar					-		•	•		•	-				-		3, 6	36, 48	50/100 Non-standard lengths available
Clea	ar																	3, 6	36, 48	50/100 Non-standard lengths available
Clea	ar															•		3	48	10/50 Non-standard lengths available
Clea	ar	•					•					•						3	48	10/50 Non-standard lengths available
Clea	ar				-							•						3	48	50 Non-standard lengths available

Clear											3	54	25/50/100
Clear											3	48, 54	25/50/100
Clear											3	54	25/50
Clear											3	30, 36, 48.5, 54, 60	25/50/100 Non-standard lengths available
Clear											3	36, 48.5, 54, 60	25 /50/100 Non-standard lengths available
Clear											3	36, 48.5, 54, 60	25/50/100 Non-standard lengths available
	_		_		_			_	_			30	50
Clear											3	54	25/50
Optically Clear							•				3	36, 48, 54	10/50 Non-standard lengths available
Clear											3	49, 54, 60	50 Non-standard lengths available
Clear											3	54	50/100 Non-standard lengths available
Clear											3	49, 54	50/100 Non-standard lengths available
Clear											3	36, 48, 54	50 Non-standard lengths available
Clear											3	48, 54, 60	50 Non-standard lengths available
Clear			•								3	48, 54, 60	50 Non-standard lengths available
Clear											3	30, 48, 54	50 Non-standard lengths available
Clear											3	48, 54, 60	50 Non-standard lengths available
Clear											3	48, 54, 60	50 Non-standard lengths available

## Solid Color Films — No Printing or Overlaminates Needed

				A	PPLIC/	ATIONS				
Elec Film	troCut Product	Fleet (commercial trailer, truck, tractor)	Transit (bus, passenger train)	Railroad	Label (warning, informational)	Signage - Non-backlit	Cut Letters/Shapes	Window Graphics	OEM Graphics	ADVANTAGES & COMMON USES
7725	3M <sup>™</sup> Scotchcal <sup>™</sup> ElectroCut <sup>™</sup> Graphic Film Series 7725	-	•	•	•	-	•	•		2 mil dimensionally stable films with perm controlled friction-fed or flat-bed cutters. S conditions and liner splitting when wet. C expected performance life. Backed by the
7125	3M <sup>™</sup> Scotchcal <sup>™</sup> ElectroCut <sup>™</sup> Graphic Film Series 7125	-	•		•	•	•	•		2 mil dimensionally stable films with perm controlled friction-fed or flat-bed cutters. quality of cutting and weeding. Cuts and w performance life. Backed by the 3M <sup>TM</sup> MCS
50	3M <sup>™</sup> Scotchcal <sup>™</sup> Graphic Film Series 50					•		•		4 mil durable films that offer reliable, affor de-identification for up to 3 years with no Excellent cutting and weeding down to 3/8

## **High Performance Fleet Film**

180C	3M <sup>™</sup> Control
	Graphic Film
	Comply <sup>™</sup> Ad
	180C

					_	
troltac™ Film with 'Adhesive	•	•		•	-	



mil dimensionally stable films with permanent adhesive, designed for electronicallyontrolled friction-fed or flat-bed cutters. Synthetic layflat liner eliminates curl in humid onditions and liner splitting when wet. Cuts and weeds down to 1/4". Up to 8 year xpected performance life. Backed by the 3M<sup>™</sup> MCS<sup>™</sup> Warranty.

2 mil dimensionally stable films with permanent adhesive, designed for electronicallycontrolled friction-fed or flat-bed cutters. Paper release liner helps improve speed and quality of cutting and weeding. Cuts and weeds down to 3/8". Up to 8 year expected performance life. Backed by the 3M<sup>™</sup> MCS<sup>™</sup> Warranty.

4 mil durable films that offer reliable, affordable 3M solutions. Removable adhesive allows de-identification for up to 3 years with no adhesive residue. Allows reuse of substrates. Excellent cutting and weeding down to 3/8" with an expected performance life of 5 years.

2 mil cast film. Repositionable, pressure-activated, pigmented adhesive with air release. Great for fleet graphics, emblems, striping and bus graphics. Up to 10 year expected performance life. Backed by the 3M™ MCS™ Warranty.

#### Remember

3M Application Tapes help you get the job done and they are an important component for the 3M<sup>™</sup> MCS<sup>™</sup> Warranty.

## Wrap Film

3M <sup>™</sup> Wrap Film	Texture/Finish	Film Properties	Roll Width	Warranty	Advantages & Common Uses
Series 1080-BR	Brushed metal				Ready to use right out of
Series 1080-CF	Carbon fiber	3.5 to 5 mil Dual Cast		3M™	the box—no printing or overlaminate required.
Series 1080-G	Gloss		60"	MCS™	Features slideable and repositionable pressure-
Series 1080-M	Matte			Warranty	activated adhesive with non-visible air release
Series 1080-S	Satin				channels. Removable.



For complete product details and warranted applications, go to 3Mgraphics.com and select Technical Information.

# Intermediate Products Everyday Films, Value Priced

The 3M line-up of intermediate films is all about providing great image quality and consistency at the right price.

## Customer Favorites: Film 40C VerSatilityfor multiple applications

3M<sup>™</sup> Controltac<sup>™</sup> Print Film 40C features great printability, ease of installation with Controltac<sup>™</sup> repositionability, air release channels, and good removability. Use for floor graphics, general signage and POP signs, partial vehicle graphics, and smooth walls. This multi-purpose film helps you:

- Reduce film inventory
- Get greater print consistency
- Reduce film waste in material reloading
- Save set up and maximize machine time
- Quick, time-saving application with slideability, air release and snap-up

## Film IJ35C Value in every sq. ft.

Your customer wants fast turnaround, a low price and a great image. You want a film that you can trust to provide the print quality that reflects your business values. When removability

isn't a concern, 3M<sup>™</sup> Scotchcal<sup>™</sup> Graphic Film IJ35C, with air release channels for virtually bubble-free applications, is the solution.



**Overlaminates** 

**30 Series** General Sign & Flat Transit

IREAT.

40 Series ble Curve & Transit Wrap 60 Series Window & Backlit

Other Film Options

11

## Intermediate Products — Everyday Films, Value Priced

Description

window	ns to grab for g v, floor, bus wra wrap applicatio	p or partial		Fleet and Vehicle	or	el	Signage — Backlit	Signage — Non-Backlit	Smooth Walls	Transit	Vehicle Wraps	Window or Glass	Application Feature	Expected Performance Life <sup>*</sup>
	Number	Product	Features & Benefits	Flee	Floor	Label	Sig	Sig	Š	Tra	Veh	Ň	App	Exp Per
	IJ35-10, IJ35-20	3M <sup>™</sup> Scotchcal <sup>™</sup> Graphic Film IJ35-10 and IJ35-20	Excellent imageability, permanent adhesive, attractive price. Available in gloss and matte finish.										Flat & Simple Curves	5 yr
ies ign &	IJ35C-10, IJ35C-20	3M <sup>™</sup> Scotchcal <sup>™</sup> Graphic Film with Comply <sup>™</sup> Adhesive IJ35C-10 and IJ35C-20	Excellent imageability, air release technology, permanent adhesive, attractive price. Available in gloss and matte finish.										Flat & Simple Curves	5 yr
<b>30 Series</b> General Sign &	IJ36-20	3M™ Transit Ad Graphic Film IJ36-20	Excellent imageability, removes easily without heat, leaving little or no adhesive residue. Matte finish.										Flat & Simple Curves	1 yr
	IJ39-20	3M <sup>™</sup> Scotchcal <sup>™</sup> High Tack Graphic Film IJ39-20	Perfect for hard to stick surfaces including low-surface energy plastics like polyethylene and polypropylene used for motocross bikes and powder-coated paints. Matte finish.										Flat & Simple Curves	5 yr
<b>40 Series</b> Simple Curve	40C-10R,	3M <sup>™</sup> Controltac <sup>™</sup> Print Film 40C-10R and 40C-20R	Controltac <sup>™</sup> technology for slideability with air release and easy removal with heat. Ideal for partial vehicle wraps, POP, flat vehicle and indoor short-term floor applications. Available in gloss and matte finish.										Flat & Simple Curves, Interior Floors	7 yr (Flat & Simple Curves) 3 mo (Floor)
40 Simple	JJ46-20	3M™ Transit Wrap Graphic Film IJ46-20	Excellent imageability, removes easily without heat, leaving little or no residue. Optimized for bus wraps. Matte finish.										Flat & Simple Curves	1 yr
× iii	IJ61	3M™ Changeable Window Graphic Film IJ61	Clear product designed for short-term window applications. Low-tack adhesive makes for easy removal of this budget-conscientious film.										Flat & Simple Curves	1 yr
60 Series Window & Backlit	IJ63-20	3M <sup>™</sup> Scotchcal <sup>™</sup> Changeable Translucent Graphic Film IJ63	Excellent imageability. Removes easily without heat, leaving little or no adhesive residue. Ideal for short-term backlit and window applications. Matte finish.										Flat & Simple Curves	1 yr
, Mip	IJ67	3M <sup>™</sup> Scotchcal <sup>™</sup> Perforated Window Film IJ67	This 60/40 perforation pattern offers excellent imageability in building, retail and bus applications. Removable for up to 6 months. Replaces 3M films IJ65 and IJ66.										Flat & Simple Curves	1 yr
ler otions	IJ162	3M™ Controltac™ Graphic Film IJ162	Excellent imageability, slideable and repositionable, easy removal with heat. Great for indoor floor graphics.										Interior Floor	1 yr
Film Of	3545C	3M <sup>™</sup> Controltac <sup>™</sup> Removable Graphic Film with Comply <sup>™</sup> Adhesive 3545C	Environmentally friendly polyolefin film with no polyvinylchloride or monomeric plasticizers in its construction and made with less solvent in manufacturing when compared to traditional solvent-based adhesive products.										Flat & Simple Curves, Flat with Rivets	3 yr
	8508	3M <sup>™</sup> Scotchcal <sup>™</sup> Gloss Overlaminate 8508	Provides graphic protection when applied over most 3M Intermediate Products.										Flat & Simple Curves	4 yr
(0	8509	3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 8509	Provides graphic protection for multiple short term applications including floors.										Flat & Simple Curves	4 yr
Overlaminates	8510M	3M <sup>™</sup> Scotchcal <sup>™</sup> Matte Overlaminate 8510M	Provides graphic protection when applied over most 3M Intermediate Products.										Flat & Simple Curves	4 yr
Overlar	8512G	3M™ Scotchcal™ Gloss Overlaminate 8512G	Provides abrasion resistance when applied over most 3M Intermediate Products and compliments Film IJ39 in low-surface energy applications.			-							Flat & Simple Curves	1 yr
	8908, 8909	3M <sup>™</sup> Scotchcal <sup>™</sup> Luster Overlaminate 8908 and Matte Overlaminate 8909	Environmentally preferred polyolefin film with no polyvinyl chloride or monomeric plasticizers in its construction.										Flat & Simple Curves	1 yr
	3648	3M <sup>™</sup> Scotchcal <sup>™</sup> High Gloss Overlaminate 3648	Provides protection from dirt, foot traffic and other environmental factors when applied over films IJ162, 40C-10R and 40C-20R.										Interior Floor Overlaminate	3 mo

Applications

\* Maximum expected outdoor performance life of unprocessed media. Adding a more durable overlaminate may not increase the expected performance life of the graphic construction.



For complete product details and warranted applications, go to 3Mgraphics.com and select Technical Information.

Face Film Characteristics		Adhesive Characteristics						Availability				
Film Material	Film Thickness (mils)	Face Finish ( <u>G</u> loss, <u>M</u> atte, <u>L</u> uster)	Film Opacity	Adhesive Color	Adhesive Features (permanent unless otherwise specified)	Ink Compatibility"	Liner	Optional Graphic Protection	Core Sizes (in inches)	Roll Widths (in inches unless otherwise specified)	Roll Lengths (in yards unless otherwise specified)	
Non-Cast Vinyl	3.2	-10 = G -20 = M	Opaque	Gray with hiding power	Pressure-Sensitive	Screen Print, Inkjet – Solvent/ ecoSolvent, UV, Latex	Layflat Polycoated Paper	8508, 8509, 8510M, 8518, 8519, 8520	3, 6	30 54, 60.5 60.5	50 (3" core) 50/100/200 (3" and 6" core) 2,300	
Non-Cast Vinyl	3.2	-10 = G -20 = M	Opaque	Gray with hiding power	Pressure-Sensitive with Air Release Channels	Screen Print, Inkjet – Solvent/ ecoSolvent, UV, Latex	Layflat Polycoated Paper	8508, 8509, 8510M, 8518, 8519, 8520	3,6	30 54, 60.5	50/100/(3" core) 50/100/200 (3" and 6" core)	
Non-Cast Vinyl	3.4	М	Opaque	Gray with hiding power	Pressure-Sensitive, Changeable	Screen Print, Inkjet – Solvent/ ecoSolvent, UV, Latex	Layflat Polycoated Paper	8508, 8509, 8510M, 8518, 8519, 8520	3, 6	54 54 61.5 61.5	50/100 (3" core) 100/200 (6" core) 50/100 (3" core) 100/200 (6" core)	
Non-Cast Vinyl	3.5	М	Opaque	Clear	Pressure-Sensitive, High Tack	Screen Print, Inkjet– Solvent/ ecoSolvent, UV, Latex	Polycoated paper	8508, 8509, 8510M, 8512, 8518, 8519, 8520	3	54	50	
Non-Cast Vinyl	3	-10R = G -20R = M	Opaque	Gray with hiding power	Pressure-Activated with Air Release Channels, Removable	Screen Print, Inkjet – Solvent/ ecoSolvent, UV, Latex	Layflat Polycoated Paper	8508, 8509, 8510M, 8518, 8519, 8520	3, 6	30 54, 60 54, 60	50/100/(3" core) 50/100/(3" core) 100/200 (6" core)	
Non-Cast Vinyl	4	М	Opaque	Gray with hiding power	Pressure-Sensitive, Changeable	Screen Print, Inkjet – Solvent/ ecoSolvent, UV, Latex	Layflat Polycoated Paper	8508, 8509, 8510M, 8518, 8519, 8520	3, 6	54, 60 54, 60	50/100/(3" core) 100/200 (6" core)	
Non-Cast Vinyl	3	G	Transparent	Clear	Bragguro Soppitivo Screen Print, Layflat 8508, 8509,		3	54	50			
Non-Cast Vinyl	3.2	М	Translucent	Clear	Pressure-Sensitive, Changeable	Screen Print, Inkjet – Solvent/ ecoSolvent, UV, Latex	Layflat Polycoated Paper	8508, 8509, 8510M, 8518, 8519, 8520	3, 6	54, 60	50/100 (3" core) 100/200 (6" core)	
Non-Cast Vinyl	5.9	М	Opaque	Clear	Pressure-Sensitive, Removable	Screen Print, Inkjet – Solvent/ ecoSolvent, UV, Latex	Polycoated paper with continuous paper backing layer	8518, 8914	3	54 27, 54	50 10/25/50	
Non-Cast Vinyl	4	Μ	Opaque	Gray	Pressure-Activated, Removable	Screen Print, Inkjet – Solvent/ ecoSolvent, UV, Latex	Layflat Polycoated Paper	3645, 3648	3, 6	48 54, 60	50 (3" core) 50 (3" core) 100/200 (6" core)	
Non-Cast Polyolefin	4	М	Opaque	Gray	Pressure-Activated with Air Release Channels, Removable	Screen Print, Inkjet – Solvent/ ecoSolvent, UV	Layflat Polycoated Paper	1920DR, 8518, 8519, 8520, 8908, 8909, 8510M, 8915	3, 6	48 54	50 (3" core) 50/100 (3" core) 100 (6" core)	
Cast Vinyl	2.5	G	Transparent	Clear	Pressure-Sensitive Permanent	Inkjet – Solvent/ ecoSolvent, UV, Latex	Kraft Paper	N/A	3	30, 54, 61	50/100	
Non-Cast Vinyl	3	L	Transparent	Clear	Pressure-Sensitive Permanent	Inkjet – Solvent/ ecoSolvent, UV, Latex	Kraft Paper	N/A	3	30, 54, 61	50/100	
Non-Cast Vinyl	3.5	М	Transparent	Clear	Pressure-Sensitive Permanent	Inkjet – Solvent/ ecoSolvent, UV, Latex	Kraft Paper	N/A	3	30, 54, 61	50/100	
Non-Cast Vinyl	12	G	Transparent	Clear	Pressure-Sensitive Permanent	Inkjet – Solvent/ ecoSolvent, UV, Latex	Kraft Paper	N/A	3	54	25/50	
Non-Cast Polyolefin	2.5	8908 = L 8909 = M	Transparent	Clear	Pressure-Sensitive	Inkjet – Solvent/ ecoSolvent, UV	Kraft Paper	N/A	3	49, 54	50/100	
Non-Cast Vinyl	4	G	Transparent	Clear	Pressure-Sensitive	Inkjet – Solvent/ ecoSolvent, UV, Latex	Kraft Paper	N/A	3	30, 48, 54	50	

\*\* ecoSolvent applies to inkjet printing only. Whether screen print or inkjet, be sure to test 3M Intermediate Products on your own equipment and inks prior to using as conditions vary by location. † Offerings available through FDC.

				(	CLEAR Charact		5						MMON Cation	S*	
Clear Coats		Liquid Laminator	Screen Press	Aqueous	Solvent	UV-Curable	Gloss Level	AVAILABILITY (Gallons)	EXPECTED Performance Life†	Inkjet- Solvent	Inkjet- UV	Inkjet - Latex	Inkjet- Aqueous	Screen Print- Solvent	Screen Print- UV
1920DR	3M™ Screen Print Gloss Clear 1920DR						Gloss	1	5						
8530	3M™ Piezo Inkjet Protective Clear 8530						Luster	5	3						
9740i	3M <sup>™</sup> Screen Print UV Gloss Clear 9740i						Gloss	1 and 5	8						

COMMON APPLICATION SURFACES

\*Varies based on specific base film and ink combinations. Refer to 3M Product Bulletins for product-specific information.

Expected Performance Life is not a warranted period of time. The Warranty Periods for recommended graphic constructions are provided in the warranty matrices or the applicable base film 3M Product Bulletin.

## Solvent Inks

	<u>Sol</u>	vent	Inks			vith s	gated	e & rate s	s	le rates
	Number	Product	PRINTER PLATFORM	DESCRIPTION	Flat	Flat w Rivets	Corru	Simpl Model Curve	Comp Curve	Flexible Substrat
	1500v2	3M <sup>™</sup> Piezo Inkjet Ink Series 1500v2	EFI <sup>™</sup> VUTEk® 150, 2360/3360, 3300/5300, 3000/5000 Printers	Solvent-based, pigmented, weather-resistant, excellent color retention. Available in standard CMYK colors plus Light Cyan, Light Magenta, Light Yellow and Light Black.					-	-
	4400	3M <sup>™</sup> Piezo Inkjet Ink Series 4400	HP Scitex XL Jet 1200 and 1500 Printers	Solvent-based, pigmented, weather-resistant, excellent color retention. Available in standard CMYK colors plus Light Cyan, Light Magenta, Light Yellow and Light Black.						
	4800	3M <sup>™</sup> Piezo Inkjet Ink Series 4800	HP Scitex TJ8300 Printer	Solvent-based, pigmented, weather-resistant, excellent color retention. Available in standard CMYK colors plus Light Cyan and Light Magenta.						
	GX	SIIT GX 3M Ink * Series	Seiko I Infotech ColorPainter™ H-74s, H-104s, W-54s, W-64s, H2-74s, H2-104s Printers	Solvent-based, pigmented, weather-resistant, excellent color retention. Available in standard CMYK colors plus Light Cyan, Light Magenta, Gray and Light Gray.	-					-
NEW	SX	SIIT SX 3M Ink * Series	Color Painter™M-64	Solvent-based, pigmented, weather-resistant, excellent color retention. Available in standard CMYK colors plus Light Cyan, Light Magenta, Gray and Light Gray.						

\*ONLY available through printer manufacturer. Contact Seiko Instruments USA at 1-800-264-1272.

## Latex Inks

NEW	HP 881	HP 881 Latex Ink, a 3M™ MCS™ Warranty Component*	HP Latex 3000 Printer	Latex-based, vibrant, flexible, six-color ink sets. Durable and weather resistant when used with compatible 3M overlaminates.						-
NEW	HP 831	HP 831 Latex Inks, a 3M™ MCS™ Warranty component*	HP Latex 360 Printer	Latex-based, vibrant, flexible, six-color ink sets. Durable and weather resistant when used with compatible 3M overlaminates.		-				
	LX600	HP 3M Specialty Latex Inks*	HP Designjet L65500, Latex 820 and 850, Scitex LX600, LX800, LX820 and LX850 Printers	Latex-based, pigmented, weather-resistant with overlaminate. Excellent color vibrancy. Available in CMYK colors plus Light Cyan and Light Magenta.	•		-	-		-
	LX610	HP Latex Inks, a 3M™ MCS™ Warranty component*	HP Designjet L65500, Scitex LX600, LX800, Latex 820 and 850, LX820 and LX850 Printers	Latex-based, pigmented, weather-resistant with overlaminate. Excellent color vibrancy. Available in CMYK colors plus Light Cyan and Light Magenta.						-
	792	HP Latex Inks, a 3M™ MCS™ Warranty component*	HP Designjet L26500, L26100 and L28500, Latex 210, 260 and 280 Printers	Latex-based, pigmented, weather-resistant with overlaminate. Excellent color vibrancy. Available in CMYK colors plus Light Cyan and Light Magenta.		-				•

\*ONLY available by contacting HP at 1-866-229-7313.

l	JV	Inks								
JEW	GSLXr	EFI <sup>™</sup> VUTEk <sup>®</sup> GSLXr 3M <sup>™</sup> SuperFlex UV Ink	EFI™ VUTEk® GS3250LXr Printer, GS5500LXr Pro Printer	UV LED-cured, weather-resistant, excellent color retention, super flexible and conformable. Available in standard CMYK plus Light Cyan, and Light Magenta for both printers., Light Black, Light Yellow also available for GS5500LXr Pro Printer.	•		•	•	•	•
	GSr	EFI <sup>™</sup> VUTEk <sup>®</sup> GSr 3M <sup>™</sup> Premium UV Ink*	EFI™ VUTEk® GS5000r and GS3250r Printers	UV-cured, weather-resistant, excellent color retention, flexible and conformable. Available in standard CMYK colors plus Light Cyan, Light Magenta, Light Yellow, Light Black and White.			•			
(	GS	EFI <sup>™</sup> VUTEk <sup>®</sup> GS 3M <sup>™</sup> Premium UV Ink*	EFI <sup>™</sup> VUTEk® GS2000, GS3200 and GS3250 Printers	UV-cured, weather-resistant, excellent color retention, flexible and conformable. Available in standard CMYK colors plus Light Cyan, Light Magenta, Light Yellow and Light Black.			•	•		•
	R3225	EFI <sup>™</sup> R3225 3M <sup>™</sup> UV ink*	EFI™ R3225 Printer	UV LED-cured, weather-resistant, excellent color retention, flexible and conformable. Available in standard CMYK.			•	-		
:	2200UV	3M <sup>™</sup> Piezo Inkjet Ink Series 2200UV*	EFI <sup>™</sup> VUTEk <sup>®</sup> PV200 Printer	UV-cured, weather-resistant, excellent color retention, flexible and conformable. Available in standard CMYK colors plus Light Cyan, Light Magenta and White.				-		-
:	2800UV	3M <sup>™</sup> Piezo Inkjet Ink Series 2800UV*	EFI™ VUTEk® QS Printers	UV-cured, weather-resistant, excellent color retention, flexible and conformable. Available in standard CMYK colors plus Light Cyan, Light Magenta and White.			•	-		
:	2700UV	3M™ Piezo Inkjet Ink Series 2700UV	Durst Rho 160R and 351R Printers	UV-cured, weather-resistant, excellent color retention, flexible and conformable. Available in standard CMYK colors plus White.				-		-
	LUS-200	Mimaki UV Ink LUS-200	Mimaki UJV500-160 Printers	UV LED-cured, weather-resistant, excellent color retention, flexible and conformable. Available in standard CMYK. A 3M <sup>™</sup> MCS <sup>™</sup> Warranty component (Manufactured by 3M)			•	-	•	
	LF200	Mimaki LF200 UV Ink*	Mimaki UJV-160, JFX-1631 and JFX-1615R Printers	UV LED-cured, weather-resistant, excellent color retention, flexible and conformable. Available in standard CMYK. Manufactured by 3M.				-		-

\*ONLY available through printer manufacturer. Contact EFI VUTEk at 1-877-EFI-INKS and Mimaki USA at 1-888-530-4021.

## **Graphic Application Tools**

At 3M, we are continuously looking for ways to improve the large-format graphics industry. You can count on 3M to develop tools and materials to help you achieve the best possible results for your customers. These graphic installation tools are designed for comfort and assist the installer in applying large-format graphics easier and faster.

3M<sup>™</sup> Power Grip Applicator for

comfortable for the installer.

3M<sup>™</sup> Comply<sup>™</sup> Adhesive Films CPA-1

Designed only for films with the Comply<sup>™</sup> Adhesive

feature. The applicator makes it easy to cover large

felt-wrapped edge disperses air evenly for a virtually

bubble-free application, and the rounded grip is more

3M<sup>™</sup> Air Release

entrapped air bubbles.

Puncture film that has already

been applied to a substrate to remove

Tool 391x

3M<sup>™</sup> Power

Grip Magic

Applicator CMP-1

Designed exclusively for

is designed for comfort.

3M<sup>™</sup> Controltac<sup>™</sup> Graphic Films

with Comply<sup>™</sup> Adhesive. The 3M magic

pad rivet applicator, with its large foam

pad, makes it easy to conform heated

film around rivets. The larger handle grip

Pad Rivet

areas with a uniform distribution of pressure. The



Inexpensive, reusable squeegee-type applicator is flexible vet durable. This tool is the perfect solution for applying film or premask.

#### 3M<sup>™</sup> Low Friction Sleeve SA-1

3M<sup>™</sup> Hand

Applicator PA-1

Reusable paper sleeve slips over the PA-1 applicators to protect the substrate from being marked or scratched.

3M<sup>™</sup> Rivet Brush Applicator RBA-1 Graphics are easier to install over rivets using this traditional applicator tool.

#### 3M<sup>™</sup> Tape Primer 94

Used to promote adhesion of 3M films to surfaces such as many plastics and paints. Recommended for use especially when conforming film to deep channels.



3M<sup>™</sup> Edge Sealing Tape 8914 Used to improve the resistance to environmental damage and enhance the durability of the graphics. Protects film edges and seams.

3M<sup>™</sup> Power Grip Rivet **Brush Applicator RBA-3** Burnish all films over rivets with ease. The



3M<sup>™</sup> Power Grip Multi-Pin Air Release Tool MPP-1 Features a uniquely

designed grip. With multiple pins, only a single motion is needed per rivet, saving time during installation on all films.

3M<sup>™</sup> Vehicle Channel Applicator Tool VCAT-2 Custom designed durable soft foam roller for vehicle channels

3M<sup>™</sup> Roller L (large) Custom designed durable firm roller for vehicle channels.

3M<sup>™</sup> Roller S (small) Custom designed durable firm roller used as finishing tool in vehicle channels.

### **Textured Surface Application Tools** for Use with 3M<sup>™</sup> Scotchcal<sup>™</sup> Graphic Film for Textured Surfaces IJ8624

3M<sup>™</sup> Textured Surface Applicator TSA-1 Specialized tool used to conform large areas of film onto a textured surface

3M<sup>™</sup> Textured Surface Applicator TSA-2 Specialized tool used to conform heated film to mortar joints and inside corners.



3M<sup>™</sup> Textured Surface Applicator TSA-3 Specialized tool used to conform heated film around cut edges and in corners and mosaic-type

Stinel® Heat Gun. TSA-TSA-2 and TSA-3.



3M<sup>™</sup> Two-Handled Textured Surface Applicator TSA-4 for Large Areas Increase installation productivity for graphics on textured surfaces. Requires heat gun, not included.

3M<sup>™</sup> Installation Kit for Textured Surfaces Combines all of the necessary tools in one kit for installing textured surface graphics using film IJ8624. Includes

applications.



15



3M<sup>™</sup> Rapid Roller **Applicator CPA-2** 

Designed exclusively for 3M<sup>™</sup> Controltac<sup>™</sup> Graphic Films with Comply<sup>™</sup> Adhesive. The 3M rapid roller applicator makes it easy to apply film. This tool has a rounded rubber grip that is more comfortable and encourages full arm movement.

## Head-to-Head with the Environment

3M's Weathering Resource Center is one of the world's largest accelerated testing facilities. Here, researchers relentlessly punish our products – films, inks, clear coats, overlaminates and finished graphics – with artificial rain, sun and extreme temperatures.

### Peace of Mind

3M goes beyond industry standards by using a battery of tests, including 20 accelerated weathering tests and a series of 3M-proprietary test methods, which are recognized internationally as improved predictors of real-world weathering results.

### **Global Exposures**

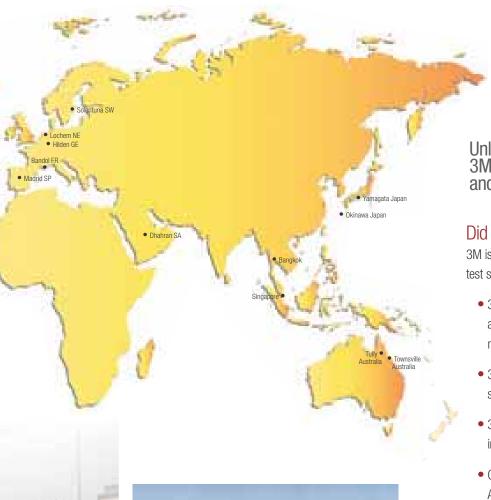
3M also conducts outdoor weathering tests at many sites around the world. This large network of sites lets 3M Commercial Graphics expose products to a range of environmental stresses – from the scorching desert heat of Arizona . . . to the tropical humidity of Thailand . . . to the bitter winter cold of Minnesota.





# Proven Performance The 3M

## **Unparalleled Commitment to Durability Testing**





Unlike other manufacturers, 3M tests both finished graphics and individual components

### Did you know?

3M is recognized as a world leader in weathering test standards.

- 3M's outdoor test sites include locations that are accepted internationally as benchmarks for evaluating material durability.
- 3M's technologies offer the fastest, most accurate solar simulations in the weathering industry.
- 3M's activities in service-life predictions are unique in the industry.
- Our researchers hold primary authorship of several ASTM and SAE weathering standards.

All this means that you can count on 3M quality and durability even when nature stirs up its very worst. And your customers can count on brand consistency and product performance wherever they do business.

For Specific 3M Inkjet Products with Qualified OEM Inks 3M Performance Guarantee



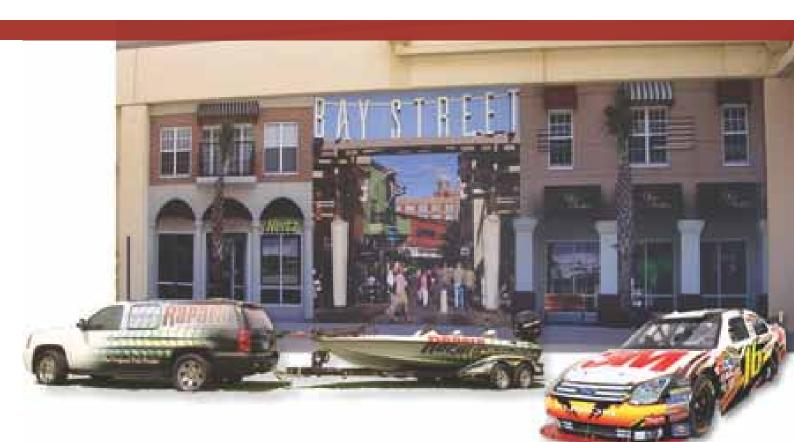
For Finished Graphics Made Using All 3M Graphic Products 3M<sup>™</sup> MCS<sup>™</sup> Warranty

To learn more about our warranties, go to 3Mgraphics.com/warranties.

# Conditions Difference

NUMB

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## Peace of Mind

#### Backed by the strength of three rock solid warranties

We offer you a choice in 3M Graphics Warranties to meet the needs and expectations of your customers, from the simple, solid reliability of our Basic Product Warranty, to the horizon-expanding 3M Performance Guarantee, and the comprehensive, standard-setting 3M<sup>™</sup> MCS<sup>™</sup> Warranty. That's how confident we are in the performance of our products.

## Knowing you can promise consistency from Miami to Madrid to Minsk

Because our products are manufactured to exacting specifications, your customers can take comfort in knowing they'll get the same look and the same quality anywhere they do business.

#### Having the support you need, always

You can count on our global team of experts to guide you in product selection, design and installation. Training? Of course.

## **Installer Programs**

#### Installation Training, Testing and Promotion

- Classes and testing available at regional 3M Authorized Facilities and with 3M Authorized Trainers throughout the U.S.
- Upon successful completion of testing, 3M will promote your services.



• Visit 3Mgraphics.com/installationprograms or call 1-800-328-3908.

## Support

## Looking for Technical Information, Color Profiles or the Product Selector?

Visit our website at 3Mgraphics.com or contact your 3M Distributor.

#### Need to speak to someone?

For General and Technical Information, call 1-800-328-3908. For sample rolls, or to order products in this guide, please visit 3Mgraphics.com/samples or contact your 3M Distributor.



## 3M Products are Designed with our Printing Partners in Mind



## **Glossary of Terms**

3M <sup>™</sup> Comply <sup>™</sup> Adhesive	3M brand name for a characteristic that permits air bubbles to escape through channels in the adhesive as a film is being applied.
3M <sup>™</sup> Comply <sup>™</sup> v3 Adhesive	3M brand name for a characteristic that permits air bubbles to escape through almost invisible channels in the adhesive as a film is being applied.
3M <sup>™</sup> Controltac <sup>™</sup> Graphic Film	3M brand name for films with pressure-activated adhesive that is slideable and repositionable until firm pressure bonds it to the substrate.
3M™ Clear Coats	A liquid clear coat that can enhance or change the gloss of a graphic and provide resistance to dirt and harmful UV light.
3M <sup>™</sup> Envision <sup>™</sup> Films	3M brand name for products that deliver leading- edge technology, best-in-class performance with a sustainability edge.
3M <sup>™</sup> Scotchcal <sup>™</sup> Graphic Film	3M brand name for films with pressure-sensitive adhesive that bonds upon contact.
3M <sup>™</sup> Scotchcal <sup>™</sup> Overlaminate	3M brand name for a transparent film that can enhance or change the gloss of a graphic as well as provide resistance to dirt, abrasion and harmful UV light.
3M™ Scotchlite™ Reflective Graphic Film	3M brand name for a retroreflective film that allows a graphic to be clearly seen in low or no ambient light situations when a light source is directed at it from a point near the viewer's location.
Application Tape	Adhesive-backed translucent material used as an aid in applying graphics.
Cast Film	Highest quality vinyl film for the best in image quality, conformability, dimensional stability and durability.
Changeable Film	Can be removed without heat or chemicals and leaves little or no adhesive residue.
Compound Curves	A surface with three-dimensional curves.
Conformable	A feature in some graphic films that allows it to conform around curves and rivets.

Inkjet printable film prefix that indicates the film is forward wound on an unnotched core.
A grid of small holes found in some printable films that allows an image to be seen on one side of a clear substrate, but allows a viewer to see through the film from the other side.
Adhesive that is not intended to be removable.
Light finger pressure may be used to tack the film in place to check for proper positioning and then repositioned if necessary. Firm pressure applied by any means, as well as high application temperature or removing and trying to reapply any liner, eliminates this feature.
Slideable, positionable and repositionable until firm pressure is applied with hand, squeegee or other application tool. Incompletely dried solvent in inkjet printed film may reduce the slideability. An applied film cannot be moved to another position.
Adheres upon contact to the substrate. Does not slide and cannot be repositioned.
Can be removed with heat and/or chemicals with up to 30 percent adhesive residue.
A surface with a two-dimensional curve.
Film slides easily across the substrate while positioning for application. Incompletely dried solvent in inkjet printed film may reduce the slideability.

The following is a summary of our warranties that may be available for the products you are using. Always refer to the current 3M Product Bulletin for the base film or substrate you are using to determine which warranty applies to your situation.

The 3M<sup>™</sup> MCS<sup>™</sup> Warranty protects the whole graphic and each individual graphic component. It covers manufacturing defects, premature failure, excessive dimensional change and loss of adhesion. 3M will replace all 3M materials used and, for certain products and applications, provide labor coverage for removal, remanufacture and reapplication. See the 3M Commercial Graphics Warranty brochure or our website for specific details.

The 3M Performance Guarantee covers product performance of 3M films and compatible 3M overlaminates and clear coats, which are guaranteed to be free of media-induced artifacts and to adhere to recommended substrates as specified in the corresponding 3M Product Bulletins. The 3M Performance Guarantee covers replacement cost of 3M materials only.

This catalog provides an Expected Performance Life period for each 3M film and overlaminate based on using the product without imaging or processing, and applied to flat surfaces in non-abusive environments. This period is a reliable expectation but

does not guarantee graphic performance. Always refer to 3M Product Bulletin for the base film or substrate you are using.

3M does not represent that any printer or printer accessory recommended in 3M literature, except for 3M branded printers and accessories, will meet customer requirements, any federal, state or local regulations or any applicable safety standards. Such determination is the responsibility of the printer owner.

Color profiles are provided on our website as a service to our customers. Profiles can conveniently be searched for via printer, RIP engine or media type.

Every effort has been made to ensure the accuracy and completeness of the information in this brochure. 3M, however, assumes no liability as a result of any errors or inaccuracies that may exist. For the most current information, please visit 3Mgraphics.com or call 1-800-328-3908.

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