

Selecting a Reflective Film - Reference Chart

v031513

Brand	FDC Series	Description	Grade					Surfaces				Adhesive			Reflective Classification	Adhesive Classification
			Utility	Engineer	Traffic	High Intensity	Diamond	Flat	Curved	Corrugation	Rivets	Permanent	Removable	Positionable		
FDC	2407 Series	Premium Flexible Engineer Grade Reflective Film		•				•	•	•	•	•			ASTM D 4956 - Type I	Class 1
FDC	2409 Series	Intermediate Utility Grade Reflective Film	•					•				•			N/A	Class 1
FDC	7300 Series	Print Media: Premium Reflective		•				•	•	•	•	•			ASTM D 4956 - Type I	Class 1
Avery	2402 Series	Premium Engineer Grade Reflective Film		•				•	•	•	•	•			ASTM D 4956 - Type I	Class 1
3M	3200 Series	3200 Engineer Grade Reflective Sheeting		•				•				•			ASTM D 4956 - Type I	Class 1
3M	3930 Series	3930 High Intensity Prismatic Reflective Sheeting				•		•				•			ASTM D 4956 - Type III & IV	Class 1
3M	4000 Series	4000 Diamond Grade™ DG3 Reflective Sheeting					•	•				•			ASTM D 4956 - Type XI	Class 1
3M	5100 Series	5100 Scotchlite™ Reflective Graphic Film		•				•	•		•	•			ASTM D 4956 - Type I	Class 1
3M	5101 Series	5100R Scotchlite™ Reflective Graphic Film		•				•	•				•		ASTM D 4956 - Type I	Class 1
3M	5800 Series	580 Scotchlite™ Reflective Graphic Film		•				•	•	•	•	•			ASTM D 4956 - Type I	Class 1
3M	6800 Series	680 Scotchlite™ Reflective Graphic Film		•				•	•	•	•			•	ASTM D 4956 - Type I	Class 3
3M	6801 Series	680CR Scotchlite™ Removable Reflective Graphic Film w/ Comply™ Adhesive		•				•	•	•	•		•	•	ASTM D 4956 - Type I	Class 3
3M	9810 Series	9830 Diamond Grade™ Conspicuity Markings					•	•				•			DOT - C2 Certified	Class 1

ASTM D 4956 classifies reflective materials based on their retroreflectance, color and durability and are a means to differentiate functional performance.

Type I: A medium-intensity retroreflective film typically constructed of enclosed lens glass-bead sheeting.

Type III: A high-intensity retroreflective film typically constructed of encapsulated glass bead retroreflective material.

Type IV: A high-intensity retroreflective film typically constructed of an unmetallized microprismatic retroreflective material.

Type IX: A very high-intensity retroreflective film typically constructed of an unmetallized microprismatic retroreflective material.

Type XI: A super high-intensity retroreflective film typically constructed of an unmetallized microprismatic retroreflective material.

Class 1: The adhesive backing shall be pressure-sensitive, require no heat, solvent, or other preparation for adhesion to smooth, clean surfaces.

Class 3: The adhesive backing shall have a positionable low-tack pressure-sensitive adhesive that requires no heat, solvent, or other preparation for adhesion to smooth, clean surfaces. It shall be repositionable up to a temperature of 100°F (38°C) without damage to the material.

DOT - C2 Certified: Meets or exceed US Government requirements for this product.

*Information is provided for reference only. Please read each series Product Data Bulletin for complete information.

Selecting a Removable Print Media - Reference Chart

v060712

	7133	7233	7243	7254	7335
Thickness:	2.4 mil.	3.0 mil	3.4 mil.	6.1 mil.	6.0 mil.
Adhesive:	Permanent (Clean Removal)	Permanent (Clean Removal)	Removable	Removable	Removable
Exterior Durability:	7 years	5 years	2 years	4 years	NA - Interior Use Only
Features:					
Removable - Short Term:			•	•	•
Removable - Long Term:	•	•			
Air - Egress Adhesive:	•	•			
Repositionable:	•	•			•
Rigid (ease of handling):				•	•
Surfaces:					
Multiple Surface:	•	•	•	•	
Glass:			•	•	
Drywall (Wall Graphic):					•
Rigid Substrates:	•	•	•	•	
Simple Curves:	•	•	•		
Complex Curves (Vehicle Wrap)	•				
Floor (Floor Graphic):			•		

*Best Use - Specific Purpose

***Permanent (Clean Removal):** Material has a permanent bond and is designed to remove cleanly for a prescribed period of time.

***Removable:** Material has less than a permanent bond and is designed to remove cleanly for a prescribed period of time.

***Removable (Ultra Low Tack):** Material has less than a permanent bond and is designed to remove with minimal effort.

***Removable - Short Term: up to 6 months clean removal.** Removability is substrate and environmental dependent. Adhesion builds with time and age increases the likelihood of adhesive transfer during removal.

***Removable - Long Term: up to 1 year clean removal (minimum - some materials have longer timeframes).** Removability is substrate and environmental dependent. Adhesion builds with time and age increases the likelihood of adhesive transfer during removal.

***Information is provided for reference only. Please read each series Product Data Bulletin for complete information.**

Sign Vinyl Products

Series	Face Type	Category	Durability	Face Mil.	Adhesive Type / Color	Width	Length	Conformability
Premium								
2100	Cast	Opaque	9 years	2.0 mil.	Permanent / Clear (Exceptions Noted)	Up to 60"	5 yd / 10 yd / 50 yd	Flat Surfaces, Simple Curves, Rivets and Corrugations
2100	Cast	Metallic	6 years	2.0 mil.	Permanent / Clear	Up to 48"	5 yd / 10 yd / 50 yd	Flat Surfaces, Simple Curves, Rivets and Corrugations
2301	High Performance Engineered PVC	Opaque	8 years	2.4 mil.	Permanent / Clear	Up to 60"	10 yd / 50 yd	Flat Surfaces, Simple Curves, Rivets and Corrugations
3700	Cast	Ultra Metallic	5 years	3.0 mil.	Permanent / Clear	Up to 48"	10 yd / 50 yd	Flat Surfaces and Simple Curves
4307	Calendered	Opaque	6 years	3.4 mil.	Permanent / Clear	Up to 60"	10 yd / 50 yd	Flat Surfaces and Simple Curves
Intermediate								
4200	Calendered	Opaque	5 years	2.8 mil.	Permanent / Clear	Up to 60"	10 yd / 50 yd	Flat Surfaces and Simple Curves
4300	Calendered	Opaque	3 years	3.0 mil.	Removable / Clear	Up to 48"	164' / 82' / 32.8' / 2'	Flat Surfaces and Simple Curves
4304	Calendered	Opaque	2 years	3.0 mil.	Removable / Clear	Up to 60"	10 yd / 50 yd	Flat Surfaces and Simple Curves
4725	Calendered	Opaque	6 years	3.2 mil.	Permanent / Clear	Up to 60"	10 yd / 50 yd	Flat Surfaces and Simple Curves
Reflective								
2402	Retro-reflective	Engineer Grade	7 years	5.5 mil.	Permanent / Clear	Up to 48"	5 yd / 10 yd / 50 yd	Flat Surfaces, Simple Curves, Rivets and Corrugations
2407	Retro-reflective	Engineer Grade	7 years	5.9 mil.	Permanent / Clear	Up to 48"	5 yd / 10 yd / 50 yd	Flat Surfaces, Simple Curves, Rivets and Corrugations
2409	Retro-reflective	Utility Grade	5 years	5.9 mil.	Permanent / Clear	Up to 48"	5 yd / 10 yd / 50 yd	Flat Surfaces
Translucent								
2500	Cast	Translucent	7 years	2.0 mil.	Permanent / Clear	Up to 60"	5 yd / 10 yd / 50 yd	Flat Surfaces and Simple Curves
Specialty								
1203	Calendered	Static Cling	3 months	7.5 mil.	NA	Up to 60"	10 yd / 50 yd	Flat Surfaces
2700	Cast	Fluorescent	2 years	2.0 mil	Permanent / White	Up to 48"	5 yd / 10 yd / 50 yd	Flat Surfaces, Simple Curves and Corrugations

Series	Face Type	Category	Durability	Face Mil.	Adhesive Type / Color	Width	Length	Conformability
Specialty								
2800	PET	Mirror Finish	2 years (Gold NA)	2.0 mil.	Permanent / Clear	Up to 60"	5 yd / 10 yd / 50 yd	Flat Surfaces
2801	PET	Brushed Finish	2 years	2.0 mil.	Permanent / Clear	Up to 54"	5 yd / 10 yd / 50 yd	Flat Surfaces
2802	PET	Mirror Finish Double Sided	N/A	2.2 mil.	Permanent / Clear	Up to 48"	5 yd / 10 yd / 50 yd	Flat Surfaces
2900	Calendered	Paint Mask Premium	N/A	3.4 mil.	Removable / Clear	Up to 60"	10 yd / 50 yd	Flat Surfaces and Simple Curves
2901	Calendered	Paint Mask Promotional	N/A	3.4 mil.	Low-Tack Removable / Clear	Up to 60"	10 yd / 50 yd	Flat Surfaces and Simple Curves
2905	Calendered	Paint Mask High Temp	N/A	3.4 mil.	High-Tack Removable / Clear	Up to 60"	10 yd / 50 yd	Flat Surfaces and Simple Curves
3300	Polymeric Cast	Imitation Leaf	5 years	4.0 mil.	Permanent / Clear	Up to 48"	5 yd / 10 yd / 50 yd	Flat Surfaces
3404	PE Based Ferro Film	Ferrous Film	N/A	16.0 mil.	Permanent / Clear	39"	20.5 ft / 41 ft	Flat Surfaces
3500	Cast	Etched Glass	5 years	2.0 mil.	Permanent / Clear	Up to 60"	10 yd / 50 yd	Flat Surfaces, Simple Curves and Corrugations
3501	Cast	Fluorescent	3 - 6 months	2.0 mil.	Permanent / White	Up to 48"	5 yd / 10 yd / 50 yd	Flat Surfaces, Simple Curves and Corrugations
3502	Nitro-Cellulose Membrane	Reprographic Stencil Mask	N/A	1.0 mi.	N/A	Up to 48"	10 yd / 50 yd	Flat Surfaces
3503	Solvent Based Resin	Reprographic Stencil Mask	N/A	1.5 mil.	NA	Up to 48"	10 yd / 50 yd	Flat Surfaces
3506	PVC	Phosphorescent	N/A	2.4 mil.	Permanent / White	Up to 40"	5 yd / 10 yd / 50 yd	Flat Surfaces
3508	Calendered	Ice Look Dryapply Film	7 years	3.2 mil.	Dryapply Permanent / Clear	48"	164 ft	Flat Surfaces
3804	Cast	Frosted Crystal	5 years	3.2 mil.	Permanent / Clear	Up to 48"	10 yd / 50 yd	Flat Surfaces and Simple Curves
4305	Calendered	Dry Erase	N/A	4.0 mil.	Permanent / Clear	Up to 60"	10 yd / 50 yd	Flat Surfaces
4306	Calendered	Enamel Receptive	2 years	4.0 mil.	Permanent / Clear	Up to 54"	10 yd / 50 yd	Flat Surfaces and Simple Curves
4308	PET / PVC Compound	White Board	N/A	6.0 mil.	Permanent / Clear	54"	32.8 ft / 164 ft	Flat Surfaces

Series	Face Type	Category	Durability	Face Mil.	Adhesive Type / Color	Width	Length	Conformability
Specialty								
4308	Calendered	Chalk Board	2 years	6.0 mil.	Permanent / Clear	Up to 48"	20.5 ft / 82 ft	Flat Surfaces
4308	PET / PVC Compound	Liquid Chalk	N/A	6.0 mil.	Permanent / Clear	48"	32.8 ft / 164 ft	Flat Surfaces
R Tape VinylEfx®								
28(##) series	Metalized PVC	Decorative Series	6 - 12 months	3.0 mil.	Permanent / Clear	Varies by Series	5 yd / 10 yd / 50 yd	Flat Surfaces
2847	Phosphorescent	GloEfx®	N/A	8.5 mil.	Permanent / Clear	Up to 24"	10 yd / 50 yd	Flat Surfaces
48(##) series	Metalized PVC	Durable Series	5 years	3.0 mil.	Permanent / Clear	Varies by Series	5 yd / 10 yd / 50 yd	Flat Surfaces and Simple Curves

LOSE THE SCREWS

with 3M fastening solutions
from FDC.

3M™ Dual Lock™ Reclosable Fastener

Strong. Hidden. Removable.



3M™ Dual Lock™ Reclosable Fasteners are a fastening solution that can replace screws, bolts and rivets. The fasteners contain hundreds of mushroom-shaped stems that audibly “SNAP” together to form a secure attachment with strong adhesive backings that adhere to your substrate. Adjust, realign or reattach with ease, leaving your product with clean, smooth lines free of holes or interruptions.

Use to replace screws, bolts and rivets – a rigid fastener ideal for mounting heavier objects on flat surfaces. Dual Lock will not sag and allows for pieces to slide against one another for easy alignment.

3M™ Hook and Loop Fastener

Hold strong. Open easy.



When your product requires thousands of easy openings and secure closings, eliminate the work and weight of metal closures and choose **3M™ Hook and Loop Fasteners**. The product forms a secure bond when the stiff hooks of one side mesh with pliable loops on the other. Yet, when you want to remove or reposition an item, hook and loop fasteners easily pull apart. With no mechanical parts to wear out, you can trust hook and loop fasteners to hold strong and open easy up to 5,000 times.

Use to replace metal closures – a flexible fastener ideal for mounting lighter weight objects on flat and curved surfaces.

- Strong, yet removable fastening
- Lighter weight than mechanical fasteners
- Offers design flexibility
- Easy to apply
- Repositionable
- Simplifies assembly
- No surface holes

Fastener Selection Chart

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Dual Lock™														
Category	Part #	Type	Color	Adhesive	Indoor/Outdoor	Low Surface Energy		Medium Surface Energy			High Surface Energy		Use	
						Polypropylene	Polyethylene	Acrylic	Poly-carbonate	ABS	Aluminum	Stainless Steel		
Good	SJ3540	Dual Lock	Black	Rubber	Indoor	X	X	X	X	X	X	X	120° F	Good for Low Surface Energy Bonding
Better	SJ4570	Dual Lock - Low Profile	Clear	Acrylic	Indoor/Outdoor	X	X	X	X	X	X	X	158° F	Low Profile, Good for Low Surface Energy Bonding
Better	SJ3870	Dual Lock	Black	Modified Acrylic	Indoor/Outdoor			X	X	X	X	X	180° F	Modified Acrylic Adhesive, Good for many Low Energy Surfaces - VHB 5952 Tape
Best	SJ3560	Dual Lock	Clear	Acrylic	Indoor/Outdoor			X	X	X	X	X	220° F	Plasticizer Resistant, Highest Heat Resistance

SJ3540, SJ3870 and SJ3560 come standard from FDC in 250 stem density and widths are available. SJ4570 is 702 stem density and 1" wide.

3M™ Hook and Loop													
Category	Part #	Type	Color	Adhesive	Indoor/Outdoor	Low Surface Energy		Medium Surface Energy			High Surface Energy		Use
						Polypropylene	Polyethylene	Acrylic	Poly-carbonate	ABS	Aluminum	Stainless Steel	
Good	SJ47501	Loop	Black	Rubber	Indoor	X	X	X	X	X	X	X	Basic Closure, Value Price
	SJ47502	Hook											
	SJ3401	Loop											
Better	SJ3402	Hook	Black	N/A	Indoor/Outdoor	Sewable	Sewable	Sewable	Sewable	Sewable	Sewable	Sewable	Plain backed for sew on applications
Better	SJ3531	Loop	Black	Rubber	Indoor	X	X	X	X	X	X	X	General Purpose
	SJ3530	Hook											
	SJ3571	Loop											
Best	SJ3572	Hook	Black	Acrylic	Indoor/Outdoor			X	X	X	X	X	High Performance

These products come standard from FDC in 1" widths, other widths are available.

Design Considerations: As a general rule, four square inches of fastener area per pound of fastener area per pound of static tensile or shear load to be supported is suggested as a starting point for evaluation. More or less area may be needed depending on specific conditions or end use applications.

Note: Final product performance depends upon a combination of factors: the substrate and its surface characteristics, the fastener selected, the application method and conditions, the time and environmental conditions required for the application. Because these factors are unique to each application, the user must evaluate the fastener and do any testing required to determine the fasteners suitability for the end-user's application.

Rubber Adhesive: Recommended for Indoor Use - High Tack, Very Sticky & Aggressive, Good for Low Surface Energy Materials

Acrylic Adhesive: Recommended for Outdoor Use - High Shear, High Temperature, Does not tend to stick as well to Low Surface Energy Materials

Dynamic Tensile Lbs/in²: measures the amount of force required to disengage the fastener.

FDC Graphic Films, Inc. offers thousands of sizes and colors for a broad range of 3M vinyl, reflective, tape products and fastener solutions available for shipment today. FDC stocks more than just the most popular colors so you can get what you want without waiting. In addition to a large range of stock items, as a 3M Authorized Master Distributor and Preferred Converter, we have the complete 3M Commercial Graphics Division product line available by special order from the factory. An extensive offering of FDC brand sign films and digital products is also available.

3M Tape - Reference Chart

v081712

MOUNTING - 3M™ Double Coated Urethane Foam Tapes

What?	3M™ Double Coated Urethane Foam Tapes are conformable foams that offer high shear strength and are available with either a high temperature holding acrylic adhesive system or a rubber adhesive system for bonding to various types of surfaces for mounting, joining and holding.						
Uses?	The urethane foam tapes are generally ideal for interior applications (mounting signs and nameplates) or for exterior applications where the tape will be protected from the environment. The urethane foam is open cell.						
Series	Construction	Color	Mil. Thickness	Outdoor Durability	Adhesive Type / Color	Adhesive	Flexibility
4016	Urethane Foam	White	31 mil.	N/A	Permanent / Clear	3M™ Adhesive 100	Conformable
4032	Urethane Foam	White	62 mil.	N/A	Permanent / Clear	3M™ Adhesive 100	Conformable

BONDING - 3M™ VHB™ (Very High Bond) Tapes

What?	3M™ VHB™ Tapes are made with acrylic foam which is viscoelastic in nature. This gives the foam energy absorbing and stress relaxing properties which provides these tapes with their unique characteristics. The acrylic chemistry provides outstanding durability performance.						
Uses?	3M™ VHB™ Tapes provide the convenience and simplicity of a tape fastener and are ideal for use in many interior and exterior bonding applications. In many situations, they can replace rivets, spot welds, liquid adhesives and other permanent fasteners.						
Series	Construction	Color	Mil. Thickness	Outdoor Durability	Adhesive Type / Color	Adhesive	Flexibility
4622	Acrylic Foam	White	45 mil.	See 3M PDB	Permanent / Clear	General Purpose / Multi-Purpose Acrylic	Conformable
4905	Acrylic	Clear	20 mil.	See 3M PDB	Permanent / Clear	General Purpose Acrylic	Solid
4910	Acrylic	Clear	40 mil.	See 3M PDB	Permanent / Clear	General Purpose Acrylic	Solid
4930	Acrylic Foam	White	25 mil.	See 3M PDB	Permanent / Clear	General Purpose Acrylic	Firm
4941	Acrylic Foam	Gray	45 mil.	See 3M PDB	Permanent / Clear	General Purpose Acrylic	Conformable
4949	Acrylic Foam	Black	45 mil.	See 3M PDB	Permanent / Clear	General Purpose Acrylic	Firm
4950	Acrylic Foam	White	45 mil.	See 3M PDB	Permanent / Clear	General Purpose Acrylic	Firm
5952	Acrylic Foam	White	45 mil.	See 3M PDB	Permanent / Clear	Modified Acrylic	Very Conformable
9473	Acrylic	Transparent	10 mil.	See 3M PDB	Permanent / Clear	Adhesive 100MP	Solid

3M Tape - Reference Chart (pg. 2)

v081712

Other - 3M™ Tapes

2000	3M™ Paper Tape 200 is a utility purpose paper tape for holding, bundling, sealing, non-critical masking and a vast number of other jobs where a pressure-sensitive tape is needed.						
2018	Scotch® Fine Line Tape 218 is a high-performance film backed tape with low profile and high adhesion to achieve excellent paint lines and for other masking and holding applications.						
3939	3M™ Duct Tape 3939 is composed of waterproof polyethylene film over cloth scrim backing with a rubber adhesive used for demanding duct tape applications.						
Series	Construction	Color	Mil. Thickness	Outdoor Durability	Adhesive Type / Color	Adhesive	Flexibility
2000	Paper	White	4.4 mil.	N/A	Permanent / Clear	Rubber Based	Conformable
2018	Polypropylene Plastic Film	Matte Green	5.0 mil.	N/A	Removable / Clear	Rubber Based	Conformable
3939	Polyethylene film over cloth scrim	Grey	9.0 mil.	N/A	Permanent / Clear	Rubber Based	Conformable

Multi-Purpose Acrylic:	This adhesive bonds to a wide range of materials including metals, glass, and high and medium surface energy plastics and paints. This unique adhesive also has the ability to resist migration of plasticizers in vinyl substrates.
Modified Acrylic:	This adhesive bonds to medium low surface energy paints and plastics, including many powder coated paints in addition to the substrates listed with the multi-purpose acrylic adhesive (except plasticized vinyl).
General Purpose Acrylic:	This adhesive bonds to most higher surface energy substrates including metal, glass and high surface energy plastics.
3M™ Adhesive 100:	Is a firm acrylic pressure sensitive adhesive system. It features high ultimate bond strength, very good high temperature and solvent resistance and very high shear holding power. Bond strength increases substantially with natural aging.
Rubber Based:	An ideal balance of properties for masking use.
Adhesive 100MP:	This adhesive bonds to most higher surface energy substrates including metal, glass and high surface energy plastics.

Conformable:	This foam provides high strength with the capability of conforming to the irregularities of rigid substrates, even when there might be slight mismatch.
Very Conformable:	This foam provides the highest level of conformability while maintaining high internal strength
Firm:	This foam provides the highest level of foam strength in the 3M™ VHB™ Tapes family.
Solid:	Not technically a foam, this solid acrylic material provides excellent clarity.

7292 Series - ASLAN Print Media: Ice Look, Dryapply Adhesive

FDC 7292 Series is ASLAN DFL 302 printable glass decoration film with Dryapply adhesive. This product is a calendered vinyl film with a silver etch effect and features ASLAN's unique Dryapply air egress adhesive system for easy application.



- **Printable**
- **Silver Etch Effect**
- **Small Channel Air Egress**
- **Fast Applications**
- **Easy To Apply**



Key Features

Film Technology	Calendered
Film Thickness	3.2 mil
Finish	Matte
Adhesive Type / Color	Dryapply - Permanent / Clear
Outdoor Durability	7 Years
Liner	Silicone Coated Paper
Conformability	Flat Surfaces

Printing

Eco Solvent
Solvent
UV Curable
Latex

FDC® Air Advantage™ Adhesive System

Air Advantage™ is an opaque air egress adhesive system that provides easy application without bubbles or wrinkles. It features a small channel cross hatch pattern for more adhesive-to-surface contact and reduced pattern appearance in the face film.



7123 Series

Highly conformable opaque cast print media for vehicle wraps with complex curves.

7233 Series

Opaque calendered print media for general use on flat surfaces and simple curves.

1025 Series

Conformable matte or textured opaque cast films for accents and displays.

FDC® Air Advantage™ Products

7123 Series High Performance Wrap, Air Advantage™ Adhesive

FDC Series 7123 is a premium grade cast vinyl film designed for printing vehicle wraps. It offers long term durability and conformability with clean removal. This product features Air Advantage™, a repositionable opaque adhesive, which provides easy application without bubbles or wrinkles. Series 7123 is warranted for use with either Series 7006 or 7000 laminate.

FDC® Print Media: High Performance Wrap, Air Advantage™ Adhesive

Series	Thickness	Technology	Adhesive / Color	Media Finish / Color	Durability	Roll Width (In)	Roll Length (Ft)	Liner
7123	2.0	Cast	Air Advantage™ Grey	002 Gloss White	7 Years	54	150 75	90# LF

7233 Series Intermediate Calendered, Air Advantage™ Adhesive

FDC series 7233 is an intermediate grade calendered vinyl film designed for printing general purpose graphics, signage and decals requiring medium-term durability with clean removal. This product features Air Advantage™ a repositionable opaque adhesive, which provides ease of application without bubbles or wrinkles. Series 7233 is designed for use with Series 7000 laminate.

FDC® Print Media: Intermediate Calendered, Air Advantage™ Adhesive

Series	Thickness	Technology	Adhesive / Color	Media Finish / Color	Durability	Roll Width (In)	Roll Length (Ft)	Liner
7233	3.0	Calendered	Air Advantage™ Grey	002 Gloss White 049 Matte White	5 Years	60, 54, 30	150 75	90# LF

1025 Series FDC® Air Advantage™ Color Film

FDC Series 1025 is a premium grade matte finish or patterned high performance cast vinyl film designed for wrap applications. This product features our exclusive Air Advantage™ adhesive system which provides easy application without bubbles or wrinkles.

FDC® Air Advantage™ Color Film

Series	Thickness	Technology	Adhesive / Color	Media Finish / Color	Durability	Roll Width (In)	Roll Length (Ft)	Liner
1025	5.0	Cast	Air Advantage™ Clear	000 Clear Carbon Fiber 002 White Carbon Fiber 003 Black Carbon Fiber 120 Charcoal Carbon Fiber	5 Years	60, 30	75 25	90# LF
	3.5			040 Matte Black 049 Matte White				



Farbkarte | Colour Card

Metalleffektfolien

Metal effect films



ASLAN Metalleffektfolien

ASLAN Metal effect films

Produkt Product	Farbe/Optik Colour/Optic	Eigenschaften Characteristics	Außenhaltbarkeit Outdoor durability	Länge (m) Length (m)	Breite (m) Width (m)
METALLEFFEKTFOLIEN / METAL EFFECT FILMS					
ASLAN CA 23	7 glänzende und gebürstete Effekte 7 glossy and brushed effects	Polyesterfolie, 50 µm, beidseitig gleicher Effekt Polyester film, 50 µm, double-sided effect	2	25	1,25
 ASLAN CAL 23	Silber und Gold glänzend Silver and gold glossy	Polyesterfolie mit Luftkanälen zur Trockenverklebung 50 µm, beidseitig gleicher Effekt Polyester film with air channels for dry application 50 µm, double-sided effect	2	25	1,25
ASLAN CA 24	5 farbig glänzende Metalleffekte 5 coloured glossy metal effects	Polyesterfolie mit PVC Oberfläche, 140 µm Polyester film with PVC surface, 140 µm	2	25	1,25
ASLAN CA 25	4 dunkel glänzende Silbertöne 4 dark glossy silver effects	Polyesterfolie mit PVC Oberfläche, 140 µm Polyester film with PVC surface, 140 µm	2	25	1,25
ASLAN CA 30	7 glänzende und gebürstete Effekte, bedruckbar 7 glossy and brushed effects, printable	Polyesterfolie mit PVC Oberfläche, digital bedruckbar mit Solvent-, Eco-Solvent-, Latex- und UV-härtenden Tinten, 140 µm, beidseitig gleicher Effekt Polyester film with PVC surface, digitally printable with solvent, eco-solvent, latex and UV curable inks, 140 µm, double-sided effect	5	25	1,25
 ASLAN CAL 30	Silber und Gold glänzend, bedruckbar Silver and gold glossy, printable	Polyesterfolie mit PVC Oberfläche mit Luftkanälen zur Trockenverklebung, digital bedruckbar mit Solvent-, Eco-Solvent-, Latex- und UV-härtenden Tinten, 140 µm, beidseitig gleicher Effekt Polyester film with PVC surface with air channels for dry application, digitally printable with solvent, eco-solvent, latex and UV curable inks, 140 µm, double-sided effect	5	25	1,25

COLOURED METAL EFFECT FILMS
METAL EFFECT LUXURY
 METALLIC GOLD SILVER
 UNIQUE SILVER SHADES
 PRINTABLE METAL EFFECT FILMS



ASLAN CA 23
Art.-Nr. 13102 K

ASLAN CA 23
Art.-Nr. 13103 K

ASLAN CA 23
Art.-Nr. 13108 K

ASLAN CA 23
Art.-Nr. 13105 K

ASLAN CA 23
Art.-Nr. 13109 K

ASLAN CA 23
Art.-Nr. 13104 K

ASLAN CA 23
Art.-Nr. 13106 K

Bedruckbare Metalleffektfolien

Printable metal effect films



ASLAN CA 30
Art.-Nr. 13119 K

ASLAN CA 30
Art.-Nr. 13117 K

ASLAN CA 30
Art.-Nr. 13118 K

ASLAN CA 30
Art.-Nr. 13125 K

ASLAN CA 30
Art.-Nr. 13129 K

ASLAN CA 30
Art.-Nr. 13124 K

ASLAN CA 30
Art.-Nr. 13126 K

Metalleffektfolien zur Trockenverklebung

Metal effect films for dry application



ASLAN CAL 23
Art.-Nr. 13102 L



ASLAN CAL 23
Art.-Nr. 13103 L



Bedruckbare Metalleffektfolien zur Trockenverklebung

Printable metal effect films for dry application



ASLAN CAL 30
Art.-Nr. 13119 L



ASLAN CAL 30
Art.-Nr. 13117 L



Metalleffektfolien in dunklen Silbertönen

Metal effect films in dark silver shades



ASLAN CA 25
Art.-Nr. 13120 K



ASLAN CA 25
Art.-Nr. 13121 K



ASLAN CA 25
Art.-Nr. 13122 K



ASLAN CA 25
Art.-Nr. 13123 K

Farbige Metalleffektfolien

Coloured metal effect films



ASLAN CA 24
Art.-Nr. 13111 K



ASLAN CA 24
Art.-Nr. 13112 K



ASLAN CA 24
Art.-Nr. 13113 K



ASLAN CA 24
Art.-Nr. 13114 K



ASLAN CA 24
Art.-Nr. 13115 K

Weitere Informationen finden Sie unter | For more information please visit

www.ASLAN-schwarz.com



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ASLAN[®] 
KOMPETENZ IN SELBSTKLEBEFOLIEN



EXPERTISE IN SELF-ADHESIVE FILMS

Quality

Made in Germany

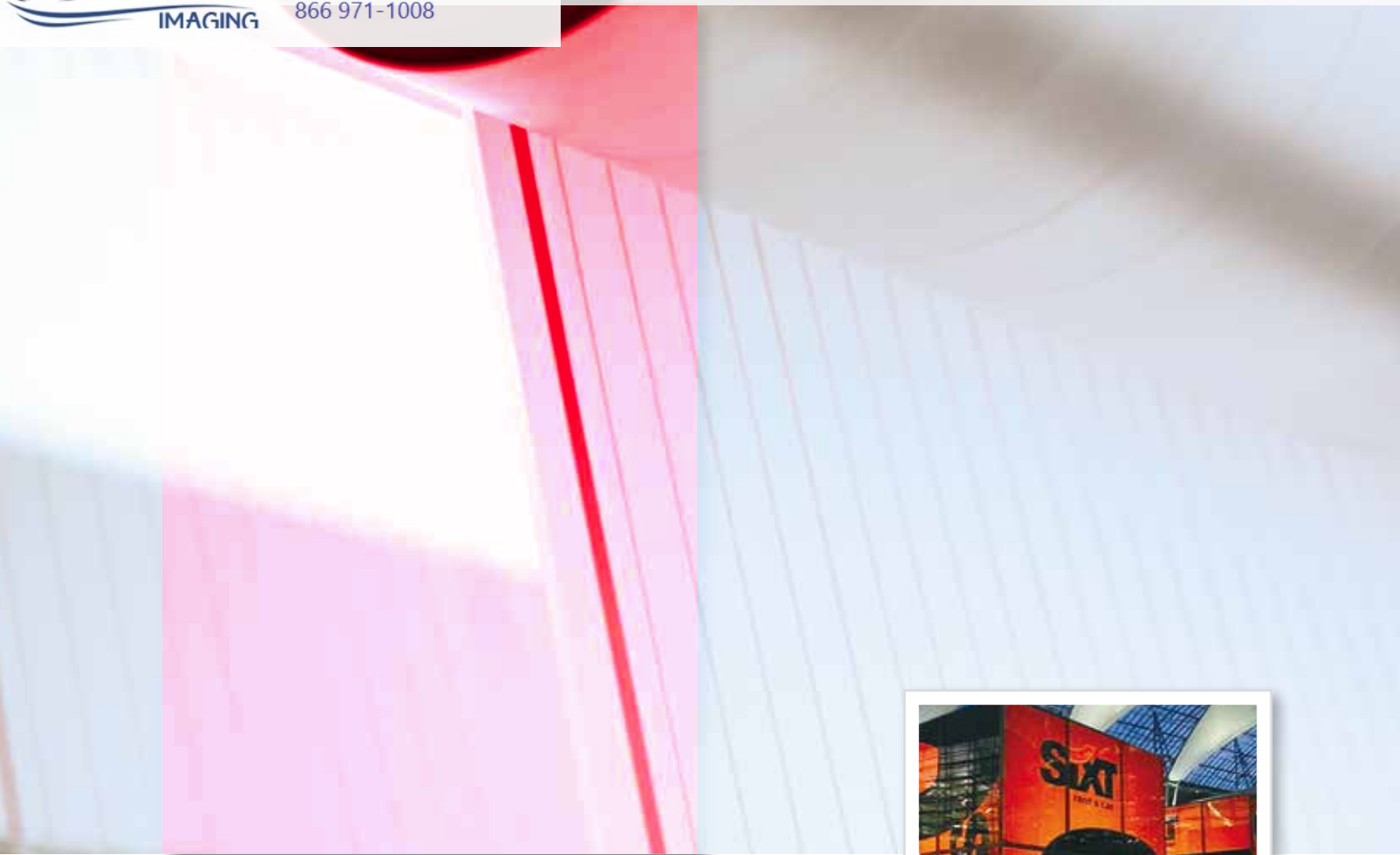
ASLAN – experience the exceptional

This statement summarises very well the ASLAN philosophy. For more than 60 years the private, family owned company has successfully developed and produced self-adhesive films for various applications. ASLAN focuses on developing tailor made solutions instead of mass market products. Requests from customers and markets continuously lead to new ideas which ASLAN transfers into self-adhesive brand products “Made in Germany”.

ASLAN – successful history and promising future

During its history ASLAN has launched many innovative products which have led to completely new application ideas. Today ASLAN is a globally marketed brand, with an export share of over 60%. The market for self-adhesive films is an international growth market. ASLAN’s ability to innovate will be the key to the future success in fast moving markets. High quality and “expertise in self-adhesive films” are the basis for growth and an excellent future for ASLAN.





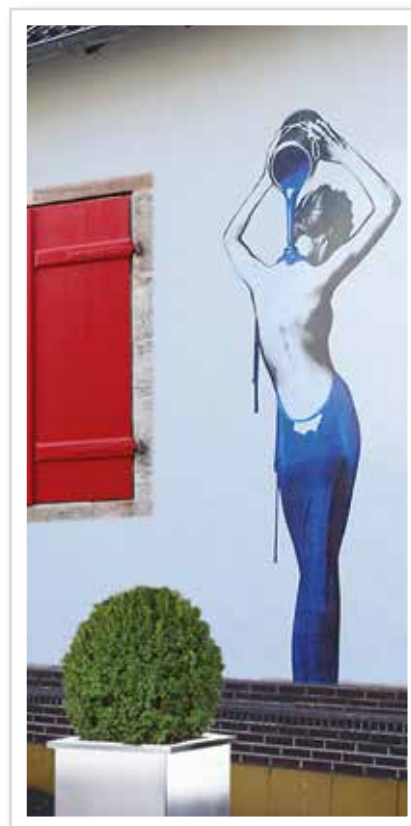
A wide portfolio of branded products

Today ASLAN offers under its brand a wide portfolio of self-adhesive films for various applications:

- Sign making
- Digital printing
- Glass decoration
- Painting and lacquering
- Stone works
- Hobby & craft supplies
- Book & office
- Room decoration
- Industrial projects

The products are as various as the applications. Eco-friendly solutions for a growing market have their place as well as individual products for very specific applications:

- Glass decoration films
- Stencil films
- Digital printing films
- Coloured films
- Laminating films
- Application tapes
- Book protection films
- Lampshades
- Various films for special applications
- and many more





Individual self-adhesive solutions

In addition to its standard portfolio ASLAN offers individual adhesive coating to its customers. Tailor made solutions are developed in dialogue with the customer. He can choose between various materials, liners and adhesives or have his own materials coated – with an adhesive for the required application.

"The experience of three generations as well as dedicated and skillful employees are the basis of our success. Continuous communication with our customers and very good service have established ASLAN as a constant in the market".

Oliver Schwarz, CEO



ASLAN

... is your contact

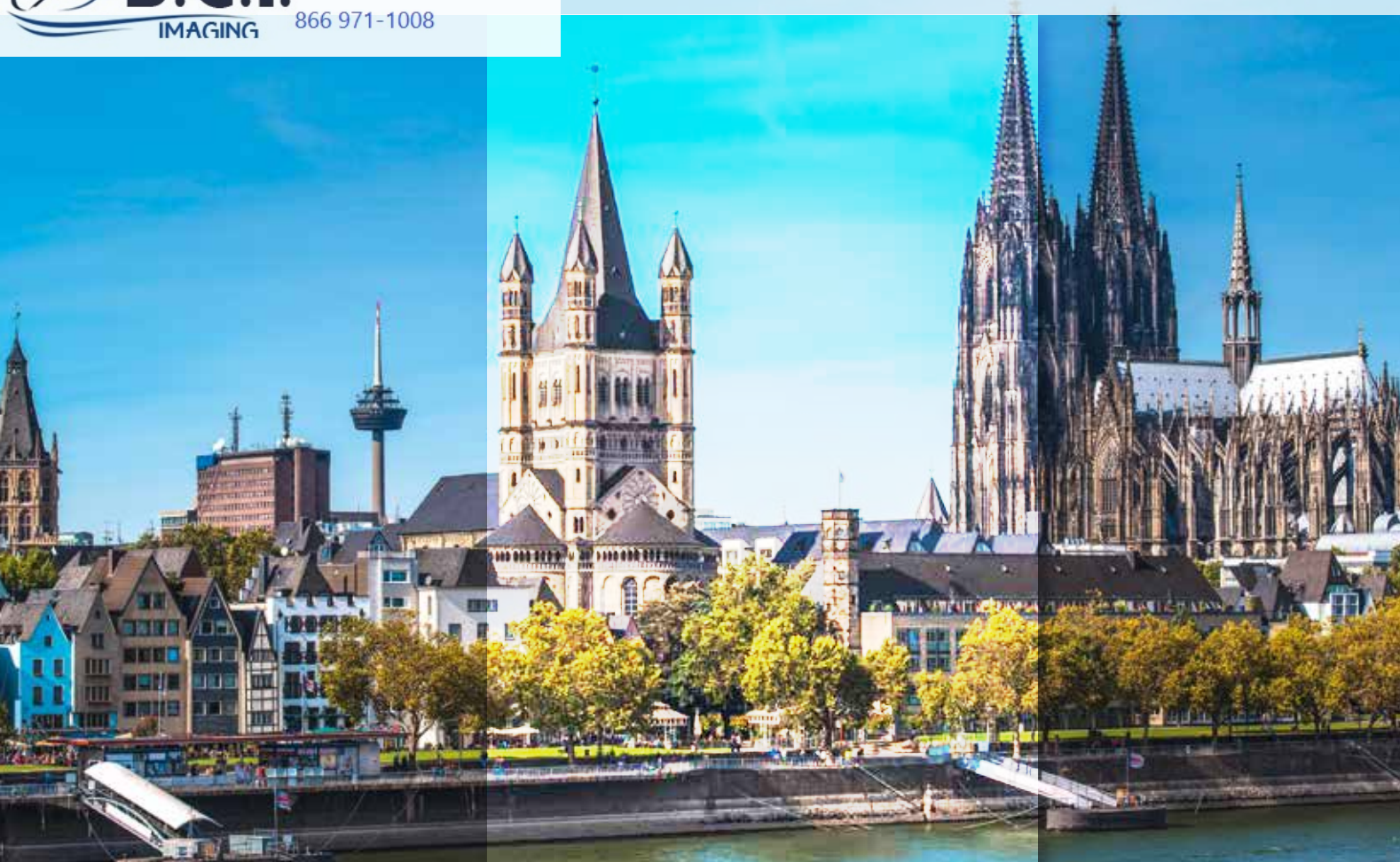
for all questions about self-adhesive films

... offers variety

in a large portfolio of branded products

... means creativity and know-how

in the development of unique and innovative self-adhesive films



For more information please visit

www.ASLAN-schwarz.com



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Self-adhesive films

■ **SIGN MAKING**

■ DIGITAL PRINTING

■ GLASS DECORATION

■ TOOLS

Quality

Made in Germany

ASLAN – experience the exceptional

At ASLAN, we strive to offer our customers something special, something exceptional. Besides an exceptionally good level of service, we make self-adhesive films that leave our customers exceptionally satisfied and are perfectly suitable for their special needs.

The ASLAN brand is a symbol of top quality and innovation "Made in Germany". Specialised in self-adhesive films, the family-owned company has constantly developed top-class products that offer significant added benefits for customers. With their particularly user-friendly, novel and unique features our self-adhesive films are a cut above the rest. With our product development activities for various industries around the globe we take a competent, individual approach that always guarantees high quality.

Benefit from our constant dialogue with our customers ...

Product development at ASLAN is driven by our customers. Their requests and requirements result in a constant flow of new ideas, which ASLAN translates into self-adhesive brand products.

But we also create customised products such as films cut to a particular size and supplied on rolls or sheets or exclusively developed, innovative adhesive systems. As an ASLAN customer you receive self-adhesive solutions tailored to your individual needs.

... and from our expertise

Our private, family-owned company is manufacturing self-adhesive films for a wide range of applications for more than 60 years. We adapt our products to the ever-changing requirements of the market – around the world and always in close cooperation with our customers.

We look forward to an opportunity to collaborate with you too and developing solutions based on your specific ideas and needs.

With our swift decision-making processes, our large experience and product and market knowledge we can develop, test and realize new product ideas quickly.

Gain a competitive edge and profit from our know how.

Stencil films

**for the production of letterings and stencils,
from the market leader for stencil films**

For lacquering and painting	on awnings, signs and vehicles	ASLAN 85 K
	with high tack adhesive	ASLAN 85 G
	on smooth surfaces	ASLAN S 79
	on facades and rough surfaces	ASLAN S 41
	on uncoated textile surfaces	ASLAN S 380
For sandblasting works	transparent, grey, 80 µm	ASLAN S 69
	transparent, grey, 180 µm	ASLAN S 68
	white, 230 µm	ASLAN S 66
	grey, 330 µm	ASLAN S 64
	transparent, grey-green, 340 µm	ASLAN S 63
	transparent, creme-coloured, 600 µm	ASLAN S 62

Colour films

**with excellent dimensional stability and very
good application skills, for letterings and logos.
minimum outdoor durability 7 years**

Opaque premium film	highly glossy polymeric film, very flexible, 70 µm	ASLAN C 118 Soft
Translucent colour film	for lightbox advertising, satin-matt polymeric film, 90 µm	ASLAN CT 116

minimum outdoor durability 5 years

Opaque colour film for rough outdoor walls	available in 7 glossy colours	ASLAN CF 128
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minimum outdoor durability 3 – 5 years

Opaque matt colour film	for exhibitions and wall decoration, 100 µm, removable	ASLAN CM 100 (DCUM)
Opaque universal colour film	in glossy and matt colours, 70 µm	ASLAN C 114
Transparent colour film	ideal for glass surfaces, 80 µm	ASLAN CT 113

Metal effect films

minimum outdoor durability 5 years

Printable metal effect films	in various shiny and brushed metal effects, same effect on both sides	ASLAN CA 30
	with air channels for easy dry applications, same effect on both sides, available in gold and silver, glossy	ASLAN CAL 30

minimum outdoor durability 2 years

Polyester films	in various shiny and brushed metal effects, same effect on both sides	ASLAN CA 23
	with air channels for easy dry applications, available in gold and silver, glossy	ASLAN CAL 23
	in 5 bright colours	ASLAN CA 24
	in 4 stylish silver effects	ASLAN CA 25

Special films for light boxes

minimum outdoor durability 7 years

Blockout film	truly opaque white film, black reverse side, available with adhesive on black or white side	ASLAN W 15
Diffuser film	ensures an even scattering of light, transparency approx. 46 %	ASLAN D 160





**THE
PERFECT
HELPERS**

TOOLS

**for professional and
fast application of ASLAN films**

Squeegees

Wooden squeegees	wooden board with felt, small, 16 cm	ASLAN FB 1
	big, 26 cm	ASLAN FB 2
Synthetic squeegee	white, synthetic felt, 20 cm	ASLAN FR 20
Plastic squeegees	white, 10 cm	ASLAN KR 1
	gold, very flexible 10 cm	ASLAN KR 2
	white, with felt edge, 10 cm	ASLAN KRF 1
	gold, very flexible, with felt edge, 10 cm	ASLAN KRF 2

Cutting tools

Universal cutter	universal cutting knife, stable metal tool	ASLAN Cutter
Stable cutter	tool for cutting vinyl from rolls	ASLAN EasyKnife

Equipment

Surface cleaner	for the treatment of surfaces before applying vinyls, 0,75 l	ASLAN AKR
Transfer liquid	concentrate 0,5 l, incl. empty dispenser	ASLAN TL 10
Liquid chalk pen	ideal for blackboard film ASLAN BB 910	ASLAN C-pen
Magnets	magnets for ferrous films, available in red, yellow, black and white	ASLAN FixHold
Application roll	tool for easy applications of ASLAN films on rough surfaces	ASLAN Application Roll
Streetroller	tool for easy application of ASLAN DFP 46 on asphalt	ASLAN A 46
Heat gun	for application and removal of films	ASLAN Heatgun

**Detailed product descriptions of all glas decoration films and tools
can also be found at www.aslan-schwarz.com**

Universal films for long-term applications

Polymeric PVC films	white, glossy	ASLAN DFP 09 Plus
	white, glossy, with strong adhesive	ASLAN DFP 07
	transparent, glossy	ASLAN DFP 17 Plus
	white, ultra translucent	ASLAN DFP 20

For glass decorations

Double sided white, block-out film	white, glossy	ASLAN DFP 25	
	white, matt, with air channels	ASLAN DFL 26	
Printable glass decoration films with air channels for dry applications	etched glass effect	ASLAN DFL 300	
	silver etched glass effect	ASLAN DFL 302	
	dusted effect	ASLAN DFL 200	
	milk glass effect	ASLAN DFL 210	
Printable glass decoration films for universal applications	etched glass effect	ASLAN DFP 300	
	silver etched glass effect	ASLAN DFP 302	

For walls, facades and floors

Easily removable PVC films	easily removable, for adhesion on wallpaper, wood, painted surfaces, metal and glass	
	white, glossy	ASLAN DFP 40
	transparent, glossy	ASLAN DFP 41
	white, matt	ASLAN DFP 42
Facade film	for rough outdoor walls, water-resistant adhesive, no laminate required, easily removable up to 6 months, 3 years durable if applied with heat ASLAN DFP 45	
Film for rough outdoor floors (asphalt)	water-resistant adhesive, easily removable, floor graphics laminate ASLAN MP 326 or ASLAN MP 300 required ASLAN DFP 46	
For smooth walls and floors	for smooth surfaces such as marble or tiles, water-resistant adhesive, easily removable in one piece, floor graphics laminate ASLAN MP 326 or ASLAN MP 300 required ASLAN DFP 47	
For carpets	easily removable in one piece, floor graphics laminate ASLAN MP 326 or ASLAN MP 300 required ASLAN DFP 49	
PVC-free digital printing paper	special paper, brilliant white, short-term waterproof, ideally suitable for decoration of coffins and other smooth surfaces ASLAN DP 100	

All ASLAN digital printing films are equipped with a double-sidedPE-coated cardboard liner, which offers a very good flatness in the printer as well as moisture stability and ensures a constant and reliable printing process.

Printability: ASLAN digital printing films are printable with all solvent, eco-solvent, latex und UV-curable inks.

LAMINATING FILMS

Long term protection of prints

minimum outdoor durability 7 years

Polymeric laminating films	protect surfaces against UV and mechanical abrasion, with UV-protection factor 6	
	transparent, glossy	ASLAN SL 17
	transparent, matt	ASLAN SL 18

Special applications

Anti-graffiti film	transparent polyester film, highly glossy, graffiti's can be removed easily, very scratch-resistant ASLAN SL 95
Outdoor floor graphics laminating films	for protection of outdoor floor graphics, water-resistant adhesive, structured surface avoids slipping, insurance warranty against injuries: R 11 slip-resistant group, tested according to DIN 51130, classification B for wet barefoot walkways according to DIN 51097, 140 µm, transparent, matt ASLAN MP 300 R 9 slip-restistant group, tested according to DIN 51130 and ASTM D, 125 µm, transparent, matt ASLAN MP 326
Floor graphics laminating film for indoor applications	for protection of floor graphics, structured surface avoids slipping, insurance warranty against injuries, 125 µm, transparent, matt ASLAN MP 325

Detailed product descriptions of all digital printing and laminating films can also be found at www.aslan-schwarz.com

For especially easy dry applications

Air channels in the adhesive allow an easy, fast and bubble-free dry application

Etched glass effect	polymeric, 7 years outdoor durability	ASLAN EL 300	
Silver etched glass effect	polymeric, 7 years outdoor durability	ASLAN EL 302	
Frosted effect	polymeric, 7 years outdoor durability	ASLAN EL 304	
Dusted effect	polymeric, 7 years outdoor durability	ASLAN EL 200	
Milk glass effect	polymeric, 7 years outdoor durability	ASLAN EL 210	
Etched glass effect, PVC-free	3-5 years outdoor durability	ASLAN EL 150	
Pastel coloured etched glass effect	polymeric, 7 years outdoor durability available in 3 pastel colours	ASLAN ECL 50	

For universal applications

Etched glass effect	polymeric, 7 years outdoor durability	ASLAN E 300
Silver etched glass effect	polymeric, 7 years outdoor durability	ASLAN E 302
Frosted effect	polymeric, 7 years outdoor durability	ASLAN E 304
Dusted effect	polymeric, 7 years outdoor durability	ASLAN E 200
Milk glass effect	polymeric, 7 years outdoor durability	ASLAN E 210
Coloured etched glass effect	16 brilliant colours, 5 years outdoor durability	ASLAN EC 55
Spirea design	embossed film, 5 years outdoor durability	ASLAN SF 250

For easy removability

Ideal for temporary applications such as exhibitions, events and promotions, easily removable within 12 months

Etched glass effect	printable, polymeric	ASLAN DFR 300	
Etched glass effect	pvc-free	ASLAN ER 150	

For digital printing

Air channels in the adhesive for fast and bubble free dry application

Etched glass effect	polymeric, 7 years outdoor durability	ASLAN DFL 300	
Silver etched glass effect	polymeric, 7 years outdoor durability	ASLAN DFL 302	
Dusted effect	polymeric, 7 years outdoor durability	ASLAN DFL 200	
Milk glass effect	polymeric, 7 years outdoor durability	ASLAN DFL 210	

For universal applications

Etched glass effect	polymeric, 7 years outdoor durability	ASLAN DFP 300
Silver etched glass effect	polymeric, 7 years outdoor durability	ASLAN DFP 302

SIGN MAKING

Luminescent films for eye-catching promotions and letterings

Fluorescent film	with very high luminosity in red, yellow and orange	ASLAN CL 70
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Memoboard films turn every surface into a memoboard

Whiteboard films, for writing with whiteboard markers	white, matt, scratch resistant	ASLAN WB 975	
	white, glossy, scratch resistant	ASLAN WB 995	
	white, glossy, scratch resistant, with air channels for easy application	ASLAN WBL 995	
	coloured whiteboard film, scratch resistant, available in 6 colours	ASLAN WBC 996	
	transparent, glossy, scratch resistant	ASLAN CB 90	
Ferrous films	transparent, matt, scratch resistant	ASLAN CB 75	
	self-adhesive ferrous film, suitable for applying magnets, anthracite	ASLAN FF 400	
	printable, self-adhesive ferrous film, white, matt	ASLAN FF 450	
	for writing with chalk green	ASLAN C 60	
	black	ASLAN C 61	
Blackboard films	black, specially scratch-resistant	ASLAN CR 62	
	for writing with chalk and liquid chalk, black	ASLAN BB 910	
Rear projection film	ideal projection surface for multi-media presentations on glass, white translucent	ASLAN RP 35	

Double-sided self-adhesive films for self-adhesive finishing of printed products

Transparent pvc films, liner on both sides	permanent adhesive on both sides, ideal for sheets and small formats	ASLAN DK 1
	permanent adhesive on both sides very flexible	ASLAN DK 3
	one side removable, one side permanent adhesive	ASLAN DK 4

Application films & tapes for an easy and exact mounting of symbols, letterings and prints

Mounting films	with release liner, ideally suitable for storing and dispatching letterings, reusable	ASLAN TM0
Filmic tapes	universal tape	ASLAN TF 100
	embossed tape, facilitates a very easy application	ASLAN TF 105
Paper tapes	low tack, for the transfer of large areas	ASLAN TP 110
	medium tack, for universal applications	ASLAN TP 122
	high tack, for universal applications	ASLAN TP 136



Content

SIGN MAKING

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- Painting & lacquering works
- Sandblasting works

Colour films

Metal effect films

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Luminescent films

Memoboard films

Double-sided self-adhesive films

Application films & tapes

DIGITAL PRINTING

Digital printing films

Laminating films

GLASS DECORATION

For especially easy dry applications

For universal applications

For easy removability

For digital printing

TOOLS



ASLAN

... is your contact

for all questions
around the topic of self-adhesive films

... offers diversity

in a wide range of
self-adhesive brand products

... stands for creativity and know-how

in the development
of unique self-adhesive films

For more information please visit

www.ASLAN-schwarz.com



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ASLAN®

EXPERTISE IN SELF-ADHESIVE FILMS

FDC Banner Print Media

7504 Series	7501 Series	7508 Series 2/ side printable	7505 Series 2/ side printable	7506 Series 2/ side printable	7604 Series	7606 Series 2/ side printable	7521 Series removable liner 63% Surface / 37% Air Flow	7522 Series removable liner 75% Surface / 25% Air Flow
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	Banner 13 oz.	Banner 13 oz. High Strength	Banner 18 oz. Blockout	Banner 13 oz. Super Smooth Blockout	Banner 15 oz. Super Smooth Blockout	Banner 13 oz. Scrimless Non-Curling Grey Back	Banner 15 oz. Scrimless Non-Curling Blockout	Banner 8 oz. Mesh Removable Liner	Banner 9 oz. Mesh Removable Liner
Use	General Purpose	General Purpose, High Strength	High Strength, Street & Pole Banners	General Purpose, Displays	General Purpose, Displays	Pop Up or Roll Up Banner Stands	Pop Up or Roll Up Banner Stands	General Purpose	General Purpose
Interior / Exterior	Exterior	Exterior	Exterior	Interior	Interior	Interior	Interior	Exterior	Exterior
Exterior Durability	up to 1 year	up to 1 year	up to 1 year	N/A	N/A	N/A	N/A	up to 1 year	up to 1 year
Wind Exposure	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Blockout	No	No	Yes	Yes	Yes	Yes	Yes	No	No
Curl Resistance	Good	Good	Superior	Excellent	Superior	Superior	Superior	Good	Good
Roll Up Banner	Good	Good	Not Recommended	Better	Better	Best	Best	Not Recommended	Not Recommended
Surface	Smooth 1 Side Print 1 Side	Smooth 1 Side Print 1 Side	Smooth 2 Side Print 2 Side	Super Smooth 2 Side Print 2 Side	Super Smooth 2 Side Print 2 Side	Super Smooth 1 Side Print 1 Side	Super Smooth 1 Side Print 1 Side	Print Front Side Liner Back Side	Print Front Side Liner Back Side
Print Quality	Excellent	Excellent	Excellent	Superior	Excellent	Superior	Superior	Excellent	Superior
Print Technology	S E U L	S E U L	S E U L	S E U	S E U	S E U	S E U	S E U L	S E U L
Denier	500 x 500	1000 x 1000	1000 x 1000	250 x 250	300 x 300	N/A (PVC/PET Laminate)	N/A (PVC/PET Laminate)	1000 x 1000	1000 x 1000
Thread Count	9 x 9	9 x 9	9 x 9	36 x 36	40 x 42	N/A	N/A	12 x 12	12 x 12
Sew Hem	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Tape Hem	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Heat Weld Hem	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fire Rating	NFPA 701, B1, M2	NFPA 701, B1, M2	NFPA 701, B1, M2	NFPA 701, B1, M2	NFPA 701, B1, M2	N/A	N/A	NFPA 701, B1, M2	NFPA 701, B1, M2
Finish / Color	Gloss White 002 Matte White 049	Gloss White 002 Matte White 049	Matte White 049	Matte White 049	Matte White 049	Luster White 102	Luster White 102	Matte White 508	Matte White 509
Width IN	30, 38, 54, 63	38, 54, 63	54, 63	38, 54	38, 54, 63	38, 54	38, 54	54	54
Length FT	120	120	120	120	120	120	120	120	120

Print Technology: S = Solvent, E = Eco Solvent, U = UV Curable, L = Latex

LIT 014 BAN - 000 052014

Die opake Universal-Farbfolie

The opaque universal colour film

matt | matt

Art.-Nr.



11451 ca. RAL 9016



11453 ca. RAL 1016



11454 ca. RAL 1003



11463 ca. RAL 2004



11462 ca. RAL 3020



11464 ca. RAL 3000



11466 ca. RAL 3002



11471 ca. RAL 6018



11473 ca. RAL 6024



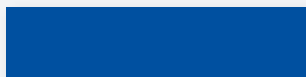
11475 ca. RAL 6028



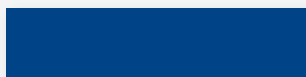
11481 ca. RAL 5015



11483 ca. RAL 5010



11485 ca. RAL 5002



11487 ca. RAL 5022



Silver/dark

11492 ca. RAL 7037



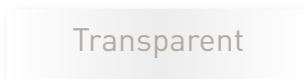
11452 ca. RAL 8016



11499 ca. RAL 9017

glänzend | glossy

Art.-Nr.

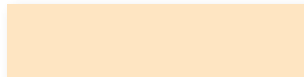


Transparent

11400



11401 ca. RAL 9003



11405 ca. RAL 1014



11407 ca. RAL 1016



11408 ca. RAL 1023



11409 ca. RAL 1003



11412 ca. RAL 2004



11414 ca. RAL 2009



11413 ca. RAL 2002



11415 ca. RAL 3020



11416 ca. RAL 3000



11417 ca. RAL 3004



11404 ca. RAL 8011



11424 ca. RAL 4006

Art.-Nr.



11420 ca. RAL 6018



11421 ca. RAL 6024



11422 ca. RAL 6029



11425 ca. RAL 6005



11431 ca. RAL 5012



11432 ca. RAL 5015



11434 ca. RAL 5005



11433 ca. RAL 5002



11435 ca. RAL 5002



11437 ca. RAL 3020



11440 ca. RAL 7042



11441 ca. RAL 7022



11445 ca. RAL 9017



Silver

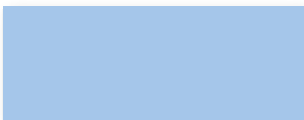
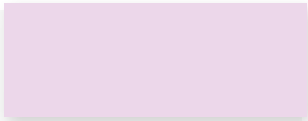
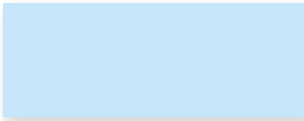
11448 ca. RAL 9022



Gold

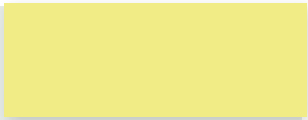
11449 ca. RAL 1036

mind. 3-5 Jahre / min. 3-5 years

Art.-Nr. 22312			Art.-Nr. 22311
Art.-Nr. 22313			Art.-Nr. 22310

ASLAN EC 55

Farbige Glasdekora**tions**folien Coloured glass decoration films

Art.-Nr. 22355			Art.-Nr. 22383
Art.-Nr. 22371			Art.-Nr. 22362
Art.-Nr. 22356			Art.-Nr. 22382
Art.-Nr. 22357			Art.-Nr. 22380
Art.-Nr. 22358			Art.-Nr. 22364
Art.-Nr. 22374			Art.-Nr. 22365
Art.-Nr. 22370			Art.-Nr. 22388
Art.-Nr. 22377			Art.-Nr. 22386
Art.-Nr. 22391			Art.-Nr. 22385
Art.-Nr. 22369			Art.-Nr. 22389

Digital Product Guide - Media

Series	Face Mil.	Film Technology	Adhesive Type / Color	Finish - Color	Outdoor Durability	Width Inches	Length Feet	Liner Weight
Air Advantage™ Media								
7123	2.0	Cast Wrap	Air Advantage™ Grey	002 Gloss White	7 Years	30, 54, 60	75, 150	90# LF
7233	3.0	Calendered	Air Advantage™ Grey	002 Gloss White 049 Matte White	5 Years	30, 54, 60	75, 150	90# LF
1025 Color Film	3.5	Cast Wrap	Air Advantage™ Clear	040 Matte Black 049 Matte White	5 Years	30, 60	25, 75	90# LF
	5.0			000 Clear Carbon Fiber 002 White Carbon Fiber 003 Black Carbon Fiber 120 Charcoal Carbon Fiber				
Print Media: High Performance								
7102	2.0	Cast	Permanent / Grey	002 Gloss White	7 Years	30, 54, 60	75, 150	90# LF
7104	2.0	Cast	Permanent / Clear	000 Gloss Clear 002 Gloss White	7 Years	30, 54, 60	75, 150	90# LF
Print Media: General Purpose								
7247	3.4	Calendered	Permanent / Grey	002 Gloss White 049 Matte White	5 Years	30, 54, 60	75, 150	90# LF
7242	3.4	Calendered	Permanent / Clear	002 Gloss White 049 Matte White	5 Years	20*, 30, 54, 60 (*20 in x 50 ft only)	50*, 75, 150	90# LF
				100 Luster Clear		30, 54, 60	75, 150	
7250	3.0	Calendered High-Tack	Permanent / Clear	002 Gloss White	5 Years	27, 54	75, 150	90# LF
7243	3.4	Calendered	Removable / Clear	002 Gloss White 049 Matte White 100 Luster Clear	2 Years	30, 54, 60	75, 150	90# LF
7253	6.1	Calendered Semi-Rigid	Permanent / Clear	049 Matte White	5 Years	30, 54, 60	75, 150	90# LF
7254	6.1	Calendered Semi-Rigid	Removable / Clear	049 Matte White	5 Years	30, 54, 60	75, 150	90# LF
7246	3.4	Economy Calendered	Permanent / Clear	002 Gloss White 049 Matte White	4 Years	30, 54, 60	75, 150	72# PK
7203	3.0	Value Calendered	Permanent / Clear	002 Gloss White 049 Matte White	3 Years	54	150	83# CK
Print Media: Specialty								
7300	5.9	Premium Reflective	Permanent / Clear	002 Gloss White	7 Years	20*, 24, 30, 48 (*20 in x 15 ft only)	15*, 75, 150	90# LF
7270	3.2	Calendered Translucent	Permanent / Clear	049 Matte White	5 Years	30, 54, 60	75, 150	90# LF
7267	6.0	Calendered Perforated	Removable / Clear	102 Matte White 50/50 *152 Punched 402 Matte White 60/40 *452 Punched	1 Year	15*, 27, 54 (*Available Punched)	25, 100	84# LF
7335	7.0	Wall Fabric	Removable / Clear	049 Matte White	N/A	30, 54, 60	100	90# LF

Air Advantage™ is an air egress adhesive system designed to allow air to escape through channels in the adhesive.

Liner Weight: CK = Clay Coated Kraft, G = Glassine, LF = LayFlat, PET = Polyester, PK = Polycoated Kraft, Pt. = Point

REV: Q1 - 2014 (032514)

Part No. LIT 13 DIGI - 001

Digital Product Guide - Media

Series	Face Mil.	Film Technology	Adhesive Type / Color	Finish - Color	Outdoor Durability	Width Inches	Length Feet	Liner Weight
Print Media: Specialty								
7420	8.7	Poster Paper	N/A	002 Gloss White	N/A	20*, 30, 54, 63 (*20 in x 50 ft only)	50*, 165	N/A
	6.5			049 Semi-Matte White			50*, 100	
7262	7.5	Static Cling	N/A	000 Gloss Clear 002 Gloss White	3 Months	30, 60	75, 150	8 pt. Board

Digital Product Guide - Banner

Print Media: General Purpose Banner

7504	13 oz.	Banner	N/A	002 Gloss White 049 Matte White	1 Year	30, 38, 54, 63	120	N/A
7501	13 oz.	Banner High Strength	N/A	002 Gloss White 049 Matte White	1 Year	38, 54, 63	120	N/A
7508	18 oz.	Banner Blockout	N/A	049 Matte White	1 Year	54, 63	120	N/A

Print Media: Super Smooth Banner

7505	13 oz.	Banner Super Smooth Blockout	N/A	049 Matte White	N/A	38, 54	120	N/A
7506	15 oz.	Banner Super Smooth Blockout	N/A	049 Matte White	N/A	38, 54, 63	120	N/A

Print Media: Non-Curling Banner

7604	13 oz.	Banner Scrimless Non-Curling	N/A	102 Luster White	N/A	38, 54	120	N/A
7606	15 oz.	Banner Scrimless Non-Curling	N/A	102 Luster White	N/A	38, 54	120	N/A

Print Media: Mesh Banner

7521	8 oz.	Mesh Banner Removable Liner	N/A	508 Matte White	1 Year	54	120	PVC
7522	9 oz.	Mesh Banner Removable Liner	N/A	509 Matte White	1 Year	54	120	PVC

Air Advantage™ is an air egress adhesive system designed to allow air to escape through channels in the adhesive.

Liner Weight: CK = Clay Coated Kraft, G = Glassine, LF = LayFlat, PET = Polyester, PK = Polycoated Kraft, Pt. = Point

REV: Q2 - 2014 (052314)

Part No. LIT 13 DIGI - 001

Digital Product Guide - Laminate

Series	Face Mil.	Film Technology	Adhesive Type / Color	Finish - Color	Outdoor Durability	Width Inches	Length Feet	Liner Weight
Laminate: High Performance								
7000	2.0	Cast	Permanent / Clear	000 Gloss Clear 200 Matte Clear	7 Years	30, 54, 60	75, 150	90# LF
7004	2.0	Cast	Permanent Optically Clear	300 Ultra Clear	5 Years	24, 30, 54, 60	75, 150	1.2 mil. PET
7006	1.5	Cast Wrap	Permanent / Clear	000 Gloss Clear	5 Years	30, 54, 60	75, 150	50# Paper
Laminate: General Purpose								
7010	3.2	Intermediate Calendered	Permanent / Clear	000 Gloss Clear 100 Luster Clear 200 Matte Clear	5 Years	30, 54, 61	75, 150	90# LF
7015	3.0	Economy Calendered	Permanent / Clear	000 Gloss Clear 100 Luster Clear 200 Matte Clear	2 Years	54	150	53# Paper
Laminate: Specialty								
7051	6.0	Calendered Floor Graphic	Permanent / Clear	100 Luster Clear	N/A	27, 54	75, 150	53# LF

Liner Weight: CK = Clay Coated Kraft, G = Glassine, LF = LayFlat, PET = Polyester, PK = Polycoated Kraft, Pt. = Point

REV: Q1 - 2014 (032514)

Part No. LIT 13 DIGI - 001

Digital Application Guide

Series	Face Mil.	Film Technology	Adhesive Type / Color	Awning	Backlit	General Purpose	Vehicle Marking	Vehicle Wrap	Window	Print Technology	Recommended Laminate	
Air Advantage™ Media												
7123	2.0	Cast Wrap	Air Advantage™ Grey				●	●		S E U L	7006	Cast Wrap
											7000	Premium Cast
7233	3.0	Calendered	Air Advantage™ Grey			●	●			S E L	7000	Premium Cast
1025 Color Film	3.5	Cast Wrap Matte Finish	Air Advantage™ Clear			●	●	●		N/A	N/A	
	5.0	Cast Wrap Carbon Fiber										
Print Media: High Performance												
7102	2.0	Cast	Permanent / Grey	●			●			T S E U L	7000	Premium Cast
7104	2.0	Cast	Permanent / Clear	●			●		●	T S E U L	7000	Premium Cast
Print Media: General Purpose												
7247	3.4	Calendered	Permanent / Grey			●				T S E U L	7010	Intermediate Calendered
7242	3.4	Calendered	Permanent / Clear			●			●	T S E U L	7010	Intermediate Calendered
7250	3.0	Calendered High-Tack	Permanent / Clear			●			●	T S E U L	7010	Intermediate Calendered
7243	3.4	Calendered	Removable / Clear			●			●	T S E U L	7005	Polypropylene
											7015	Econo Calendered
7253	6.1	Calendered Semi-Rigid	Permanent / Clear			●				T S E U L	7010	Int. Calendered
											7015	Econo Calendered
7254	6.1	Calendered Semi-Rigid	Removable / Clear			●			●	T S E U L	7010	Int. Calendered
											7015	Econo Calendered
7246	3.4	Economy Calendered	Permanent / Clear			●			●	T S E U L	7005	Polypropylene
											7015	Econo Calendered
7203	3.0	Value Calendered	Permanent / Clear			●			●	T S E U L	7005	Polypropylene
											7015	Econo Calendered
Print Media: Specialty												
7300	5.9	Premium Reflective	Permanent / Clear			●	●			T S E U L	7004	Premium Cast Optically Clear
7270	3.2	Calendered Translucent	Permanent / Clear		●					T S E U L	7010	Int. Calendered
7267	6.0	Calendered Perforated	Permanent / Clear						●	T S E L	7004	Premium Cast Optically Clear
7335	7.0	Wall Fabric	Removable / Clear			●				T S E U L	N/A	
7420	8.7 (002)	Poster Paper	N/A			●				T S E U L	7005	Polypropylene
	6.5 (049)										7015	Econo Calendered
7262	7.5	Static Cling	N/A			●			●	T S E U L	N/A	

Air Advantage™ is an air egress adhesive system designed to allow air to escape through channels in the adhesive.

Print Technology: T = Thermal Transfer, S = Solvent, E = Eco Solvent, U = UV Curable, L = Latex

REV: Q1 - 2014 (032514)

Part No. LIT 13 DIGI - 002

Digital Application Guide

Series	Face Mil.	Film Technology	Adhesive Type / Color	Awning	Backlit	General Purpose	Vehicle Marking	Vehicle Wrap	Window	Print Technology	Recommended Laminate
Print Media: General Purpose Banner											
7504	13 oz.	Banner	N/A			•				SEUL	N/A
7501	13 oz.	Banner High Strength	N/A			•				SEUL	N/A
7508	18 oz.	Banner Blockout	N/A			•				SEUL	N/A
Print Media: Super Smooth Banner											
7505	13 oz.	Banner Super Smooth Blockout	N/A			•				SEU	N/A
7506	15 oz.	Banner Super Smooth Blockout	N/A			•				SEU	N/A
Print Media: Non-Curling Banner											
7604	13 oz.	Banner Scrimless Non-Curling	N/A			•				SEU	N/A
7606	15 oz.	Banner Scrimless Non-Curling	N/A			•				SEU	N/A
Print Media: Mesh Banner											
7521	8 oz.	Mesh Banner Removable Liner	N/A			•				SEUL	N/A
7522	9 oz.	Mesh Banner Removable Liner	N/A			•				SEUL	N/A

Print Technology: T = Thermal Transfer, S = Solvent, E = Eco Solvent, U = UV Curable, L = Latex

REV: Q1 - 2014 (032514)

Part No. LIT 13 DIGI - 002

Digital Cross Reference - Media

Series	Face Mil.	Film Technology	Adhesive Type / Color	Finish - Color	3M	Arlon	Avery	GMI	Oracal	Ritrama	Roland
Air Advantage™ Media											
7123	2.0	Cast Wrap	Air Advantage™ Grey	002 Gloss White	IJ 180C	DPF 6000XRP	MPI 1005 EZ	SPMVW2	3951 RA	3-2422	ESM-PWV
7233	3.0	Calendered	Air Advantage™ Grey	002 Gloss White	IJ 40C	DPF 4560GTX	MPI 2005 EZ	-	3165 RA	3-2310	ESM-CWVR
				049 Matte White	-	DPF 4560MTX	-	-	-	3-2376	-
1025	3.5	Cast Wrap	Air Advantage™ Clear	Matte Finish	1080	2100X 2300X	SW 9000	-	970 RA	Ri Wrap	-
	5.0			Carbon Fiber							
Print Media: High Performance											
7102	2.0	Cast	Permanent / Grey	002 Gloss White	IJ 3650-10	DPF 6000RP	MPI 1060	-	3951	3-9008	-
7104	2.0	Cast	Permanent / Clear	000 Gloss Clear 002 Gloss White	IJ 3650-114	DPF 6000RPC	MPI 1060	-	3951	3-8563	-
					IJ 3650-10	-	MPI 1060	-	3951	3-9008	-
Print Media: General Purpose											
7247	3.4	Calendered	Permanent / Grey	002 Gloss White	-	DPF 4560GT	MPI 2903	SPM400 GWF/GR	3651/3165	3-9907	-
				049 Matte White	-	DPF 4590MT	MPI 2923	-	3651/3165	3-9908	-
7242	3.4	Calendered	Permanent / Clear	002 Gloss White	-	DPF 4500G	-	SPM300GWF	-	3-9906	ESM-GCVP
				049 Matte White	-	-	MPI 2920	-	-	3-9905	ESM-MCVP
				100 Luster Clear	-	DPF 4500G	-	-	3651	-	ESM-CCVP
7250	3.0	Calendered High-Tack	Permanent / Clear	002 Gloss White	-	DPF 8000	-	-	3105HT	-	-
7243	3.4	Calendered	Removable / Clear	002 Gloss White	-	-	-	-	-	-	-
				049 Matte White	-	DPF 4300	-	-	3628	3-7839	-
				100 Luster Clear	-	-	-	-	3620	-	-
7253	6.1	Calendered Semi-Rigid	Permanent / Clear	049 Matte White	-	-	-	-	-	3-9117	-
7254	6.1	Calendered Semi-Rigid	Removable / Clear	049 Matte White	-	-	MPI 3601	-	3268	3-9292	-
7246	3.4	Economy Calendered	Permanent / Clear	002 Gloss White	-	-	MPI 2900	SPM341	3164	3-7834	-
				049 Matte White	-	-	MPI 3920	SPM441	3164	3-9096	-
7203	3.0	Value Calendered	Permanent / Clear	002 Gloss White	IJ10-10T	DPF 600GT	MPI 3900	SPM341	3640	3-0027	-
				049 Matte White	IJ10-20T	DPF 600MT	MPI 3920	SPM441		3-0026	
Print Media: Specialty											
7300	5.9	Premium Reflective	Permanent / Clear	002 Gloss White	IJ 680	DPF 2400	MPI 6200	SPMRG	5600	-	ESM-PRV2
7270	3.2	Calendered Translucent	Permanent / Clear	049 Matte White	-	-	MPI 2050	SPMTBL	3850	3-2085	-

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Liner Weight: CK = Clay Coated Kraft, G = Glassine, LF = LayFlat, PET = Polyester, PK = Polycoated Kraft, Pt. = Point

REV: Q4 - 2013 (102313)

Part No. LIT 13 DIGI - 003

Digital Cross Reference - Media

Series	Face Mil.	Film Technology	Adhesive Type / Color	Finish - Color	3M	Arlon	Avery	GMI	Oracal	Ritrama	Roland
Print Media: Specialty											
7267	6.0	Calendered Perforated	Permanent / Clear	102 Matte White 50/50	IJ 85	DPF 40WF	MPI 3528	SPMPWE	3675	3-9499	ESM-VTV2
				402 Matte White 60/40	IJ 86	DPF 45WF	-	SPMEPWE	3676	3-2287	-
7335	7.0	Wall Fabric	Removable / Clear	049 Matte White	IJ 86E	DPF 206	MPI 2611	SPMWG6	3268	4-0201	ESM-WFRF
7420	8.7	Poster Paper	N/A	002 Gloss White	-	-	-	SPMPBP	-	-	ESM-SGP2
	6.5			049 Semi-Matte White	-	-	-	-	-	-	-
7262	7.5	Static Cling	N/A	000 Gloss Clear	-	-	-	SPMHSC	-	-	-
				002 Gloss White	-	-	-	SPMHSW	-	-	-

Digital Cross Reference - Banner

Series	Face Mil.	Film Technology	Adhesive Type / Color	Finish - Color	3M	Arlon	Herculite	Roland	Ultra Flex	US Banner	Value Vinyls
Print Media: General Purpose Banner											
7504	13 oz.	Banner	N/A	002 Gloss White	8451	DPF 313	Bantex 13 oz.	ESM-GBV	-	Coral 13 oz.	Freedom 13 oz.
				049 Matte White	-			ESM-LBV2			
7501	13 oz.	Banner High Strength	N/A	002 Gloss White	8451	DPF 313	-	ESM-GBV	JetFlex	Crown 13 oz.	-
				049 Matte White	-			ESM-LBV2			
7508	18 oz.	Banner Blockout	N/A	049 Matte White	-	DPF 318	Bantex 18 oz. Blockout	-	Pole Banner 18 oz.	Coral 18 oz. Black-out	Freedom 18 oz. Opaque
Print Media: Super Smooth Banner											
7505	13 oz.	Banner Super Smooth Blockout	N/A	049 Matte White	-	DPF 303	Bantex 13 oz. Blockout	-	-	Pearl 2 13 oz.	Freedom 13 oz. Opaque
7506	15 oz.	Banner Super Smooth Blockout	N/A	049 Matte White	-	DPF 315	-	-	Super-Smooth Blockout	-	Adflex 15 oz.
Print Media: Non-Curling Banner											
7604	13 oz.	Banner Scrimless Non-Curling	N/A	102 Luster White	-	DPF 210	-	-	Super-Smooth PET Grey Back	-	Rio PET 13 oz.
7606	15 oz.	Banner Scrimless Non-Curling	N/A	102 Luster White	-	DPF 215	-	-	Super-Smooth PET Blockout	-	Rio PET 15 oz.
Print Media: Mesh Banner											
7521	8 oz.	Mesh Banner Removable Liner	N/A	508 Matte White	-	DPF 308	-	-	UltraMesh Plus	-	Rio 8 oz.
7522	9 oz.	Mesh Banner Removable Liner	N/A	509 Matte White	-	-	-	-	UltraMesh Supreme	Pearl 11 oz. Mesh	Rio 9 oz.

Liner Weight: CK = Clay Coated Kraft, G = Glassine, LF = LayFlat, PET = Polyester, PK = Polycoated Kraft, Pt. = Point

REV: Q1 - 2014 (032514)

Part No. LIT 13 DIGI - 003

Digital Cross Reference - Laminate

Series	Face Mil.	Film Technology	Adhesive Type / Color	Finish - Color	3M	Arlon	Avery	GMI	Oracal	Ritrama	Roland
Laminate: High Performance											
7000	2.0	Cast	Permanent / Clear	000 Gloss Clear	8518	3220G	DOL 1060	LM2GL	290	3-8954	PGM-OLPG2
				200 Matte Clear	8520	3220M	DOL 1080	LM2MC	290	3-8956	PGM-PMCO
7004	2.0	Cast	Permanent Optically Clear	300 Ultra Clear	8914	3200	DOL 1560	-	290 F	3-8957	-
7006	1.5	Cast Wrap	Permanent / Clear	000 Gloss Clear	-	-	DOL 1360	LM1GL	293	3-2211	-
Laminate: General Purpose											
7010	3.2	Intermediate Calendered	Permanent / Clear	000 Gloss Clear	-	3420	DOL 2060	LM4CL	215	3-7844	-
				100 Luster Clear	-	3420	DOL 2070	LM3LL	215	3-8213	PGM-OLCL
				200 Matte Clear	-	3420	DOL 2080	LM4MCL	215	3-7835	-
7015	3.0	Economy Calendered	Permanent / Clear	000 Gloss Clear	-	-	-	-	200	-	-
				100 Luster Clear	-	-	-	-	200	-	-
				200 Matte Clear	-	-	-	-	200	-	-
Laminate: Specialty											
7051	6.0	Calendered Floor Graphic	Permanent / Clear	100 Luster Clear	8566	-	-	SPMWOG-FW/DP	250 AS	3-8621	-

Liner Weight: CK = Clay Coated Kraft, G = Glassine, LF = LayFlat, PET = Polyester, PK = Polycoated Kraft, Pt. = Point

REV: Q1 - 2014 (032514)

Part No. LIT 13 DIGI - 003



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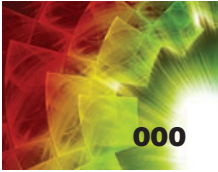
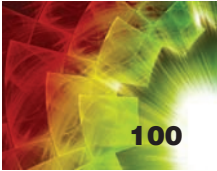
Part No.	Face Mil.	Description	Gloss	Matte	Clear
Air Advantage™ Media			Color Number	Color Number	Color Number
7123	2.0	Air Advantage™ Premium Cast Wrap	002	--	--
7233	3.0	Air Advantage™ Intermediate Calendered	002	049	--
1025	3.5	Air Advantage™ Color Film, Wrap (3.5 mil. - 040, 049) (5.0 mil. - 000, 002, 003, 120)	049	002	000
	5.0		040	003	120
Print Media: High Performance					
7102	2.0	Premium Cast, Permanent Grey Adhesive	002	--	--
7104	2.0	Premium Cast, Permanent Adhesive	002	--	000
Print Media: General Purpose					
7247	3.4	Intermediate Calendered, Permanent Grey Adhesive	002	049	--
7242	3.4	Intermediate Calendered, Permanent Adhesive	002	049	100
7250	3.0	Intermediate Calendered, Permanent High Tack Adhesive	002	--	--
7243	3.4	Intermediate Calendered, Removable Adhesive	002	049	100
7253	6.1	Intermediate Calendered, Semi-Rigid, Permanent Adhesive	--	049	--
7254	6.1	Intermediate Calendered, Semi-Rigid, Removable Adhesive	--	049	--
7246	3.4	Economy Calendered, Permanent Adhesive	002	049	--
7203	3.0	Value Calendered, Permanent Adhesive	002	049	--

Air Advantage™ is an air egress adhesive system designed to allow air to escape through channels in the adhesive.



Part No.	Face Mil.	Description	Gloss	Matte	Clear
Print Media: Specialty			Color Number	Color Number	Color Number
7300	5.9	Premium Reflective, Permanent Adhesive	002	--	--
7270	3.2	Translucent Calendered, Permanent Adhesive	--	049	--
7267	6.0	Perforated Calendered, Removable Adhesive (102 - 50/50 perf, 402 - 60/40 perf)	--	102	--
			--	402	--
7335	7.0	Wall Fabric, Removable Adhesive	--	049	--
7420	8.7 (002) 6.5 (049)	Paper	002	049	--
7262	7.5	Static Cling	002	--	000
Print Media: Banner					
7504	13 oz.	Banner	002	049	--
7501	13 oz.	Banner, High Strength	002	049	--
7508	18 oz.	Banner, Blockout	--	049	--
7505	13 oz.	Banner Super Smooth, Blockout	--	049	--
7506	15 oz.	Banner Super Smooth, Blockout	--	049	--
7604	13 oz.	Banner Scrimless Non-Curling, Grey Back	--	102	--
7606	15 oz.	Banner Scrimless Non-Curling, Blockout	--	102	--
7521	8 oz.	Mesh, Removable Liner	--	508	--
7522	9 oz.	Mesh, Removable Liner	--	509	--



Part No.	Face Mil.	Description	Gloss	Matte	Luster
Laminate: High Performance			Color Number	Color Number	Color Number
7000	2.0	Premium Cast			--
7004	2.0	Premium Cast, Optically Clear Adhesive		--	--
7006	1.5	Premium Cast, Wrap		--	--
Laminate: General Purpose					
7005	1.0	Polypropylene		--	--
7010	3.2	Intermediate Calendered			
7015	3.0	Economy Calendered			
Laminate: Specialty					
7051	6.0	Calendered, Floor Graphic	--	--	



Series	Description	Width"	Length'	
Air Advantage™ Media				
7123	Air Advantage™ Premium Cast Wrap	54	150, 75	
7233	Air Advantage™ Intermediate Calendered	60, 54, 30	150, 75	
1025	Air Advantage™ Color Film, Wrap	60, 30	75, 25	
Print Media: High Performance				
7102	Premium Cast, Permanent Grey Adhesive	60, 54, 30	150, 75	
7104	Premium Cast, Permanent Adhesive	60, 54, 30	150, 75	
Print Media: General Purpose				
7247	Intermediate Calendered, Permanent Grey Adhesive	60, 54, 30	150, 75	
7242	Intermediate Calendered, Permanent Adhesive	60, 54, 30	150, 75	Also available in 20" x 50'
7250	Intermediate Calendered, Permanent High Tack Adhesive	54, 27	150, 75	
7243	Intermediate Calendered, Removable Adhesive	60, 54, 30	150, 75	
7253	Intermediate Calendered, Semi-Rigid, Permanent Adhesive	60, 54, 30	150, 75	
7254	Intermediate Calendered, Semi-Rigid, Removable Adhesive	60, 54, 30	150, 75	
7246	Economy Calendered, Permanent Adhesive	60, 54, 30	150, 75	
7203	Value Calendered, Permanent Adhesive	54	150	
Print Media: Specialty				
7300	Premium Reflective, Permanent Adhesive	48, 30, 24	150, 75	Also available in 20" x 15'
7270	Translucent Calendered, Permanent Adhesive	60, 54, 30	150, 75	
7267	Perforated Calendered, Removable Adhesive	54, 27, 15	100, 25	Available punched in 15" width
7335	Wall Fabric, Removable Adhesive	60, 54, 30	100	
7420	Paper	63, 54, 30	165 (002), 100 (049)	Also available in 20" x 50'
7262	Static Cling	60, 30, 15	150, 75	Available punched in 30" & 15" widths
Print Media: Banner				
7504	13 oz. Banner	63, 54, 38, 30	120	
7501	13 oz. Banner, High Strength	63, 54	120	
7508	18 oz. Banner, Blockout	54	120	
7505	13 oz. Banner Super Smooth, Blockout	54, 38	120	
7506	15 oz. Banner Super Smooth, Blockout	63, 54, 38	120	
7604	13 oz. Banner Scrimless Non-Curling, Grey Back	54, 38	120	
7606	15 oz. Banner Scrimless Non-Curling, Blockout	54, 38	120	
7521	8 oz. Mesh Banner, Removable Liner	54	120	
7522	9 oz. Mesh Banner, Removable Liner	54	120	
Laminate: High Performance				
7000	Premium Cast	60, 54, 30	150, 75	
7004	Premium Cast, Optically Clear Adhesive	60, 54, 30, 24	150, 75	
7006	Premium Cast Wrap	54	150, 75	
Laminate: General Purpose				
7005	Polypropylene	54	150, 75	
7010	Intermediate Calendered	61, 54, 30	150, 75	
7015	Economy Calendered	54	150	
Laminate: Specialty				
7051	Calendered, Floor Graphic	54, 27	150, 75	



Series	Durability	Film Technology	Adhesive Type / Color	Awning	Backlit	General Purpose	Vehicle Marking	Vehicle Wrap	Window	Print Tech.	Recommended Laminate
Air Advantage™ Color Film											
7123	7 Years	Premium Cast	Air Advantage™ / Grey				•	•		SEUL	7006
7233	5 Years	Intermediate Calendered	Air Advantage™ / Grey			•	•			SEL	7000
1025	5 Years	Premium Cast	Air Advantage™ / Clear			•	•	•		N/A	N/A
Print Media: High Performance											
7102	7 Years	Premium Cast	Permanent / Grey	•			•			TSEUL	7000
7104	7 Years	Premium Cast	Permanent / Clear	•			•		•	TSEUL	7000
Print Media: General Purpose											
7247	5 Years	Intermediate Calendered	Permanent / Grey			•				TSEUL	7010
7242	5 Years	Intermediate Calendered	Permanent / Clear			•			•	TSEUL	7010
7250	5 Years	Intermediate Calendered	High Tack / Clear			•				TSEUL	7010
7243	2 Years	Intermediate Calendered	Removable / Clear			•			•	TSEUL	7005 7015
7253	5 Years	Intermediate Calendered	Permanent / Clear			•				TSEUL	7010
7254	5 Years	Intermediate Calendered	Removable / Clear			•			•	TSEUL	7010
7246	4 Years	Economy Calendered	Permanent / Clear			•			•	TSEUL	7010 7015
7203	3 Years	Value Calendered	Permanent / Clear			•			•	TSEUL	7005 7010
Print Media: Specialty											
7300	7 Years	Premium Reflective	Permanent / Clear			•	•			TSEUL	7004
7270	5 Years	Translucent Calendered	Permanent / Clear		•					TSEUL	7010
7267	1 Year	Perforated Calendered	Removable / Clear						•	TSEL	7004
7335	N/A	Wall Fabric	Removable / Clear			•				TSEUL	N/A
7420	N/A	Paper	N/A			•				TSEUL	7005 7015
7262	N/A	Static Cling	N/A			•			•	TSEUL	N/A
Print Media: Banner											
7504	1 Year	13 oz. Banner	N/A			•				SEL	N/A
7501	1 Year	13 oz. Banner High Strength	N/A			•				SEUL	N/A
7508	1 Year	18 oz. Banner Blockout	N/A			•				SEUL	N/A
7505	1 Year	13 oz. Banner Super Smooth Blockout	N/A			•				SEL	N/A
7506	1 Year	15 oz. Banner Super Smooth Blockout	N/A			•				SEL	N/A
7604	N/A	13 oz. Banner Scrimless Non-Curling	N/A			•				SEU	N/A
7606	N/A	15 oz. Banner Scrimless Non-Curling	N/A			•				SEU	N/A
7521	1 Year	8 oz. Mesh Banner Removable Liner	N/A			•				SEUL	N/A
7522	1 Year	9 oz. Mesh Banner Removable Liner	N/A			•				SEUL	N/A

Air Advantage™ is an air egress adhesive system designed to allow air to escape through channels in the adhesive.

Print Technology: T = Thermal Transfer, S = Solvent, E = Eco Solvent, U = UV Curable, L = Latex

1.0 Overview

Proper cleaning and preparation of substrate prior to decal application is critical to the success of the decal. The following cleaning and surface preparation conditions must be followed immediately prior to application. Failure to adhere to these requirements can cause adhesion loss and therefore reduce the durability and performance level of the decal. The following conditions are relevant to properly prepared paint systems processed correctly per paint manufacturer's specifications.

***NOTE:** It is the responsibility of the end-user to ensure all painted substrates have been processed and cured per the paint manufacturer's requirements. Failure to follow paint manufacturer requirements can lead to decal failures and/or removal problems.

All substrate surfaces should be considered contaminated, and must be cleaned prior to pressure sensitive material applications. Even freshly painted or recently cleaned surfaces will collect dust and dirt quickly, and should be cleaned prior to film application. Be sure all edges, corners, crevices, and hard to reach areas are cleaned as well, these are difficult and often overlooked areas.

All surfaces should be dry as well as clean. The trapping of any moisture under a graphics can cause premature failure by bubbling, incomplete adhesion, or creation of an ice layer in extreme cold situations. Moisture on a substrate can be created by the following; inadequate drying, failure to pre-cure some substrates like polycarbonates, condensation at low temperatures, or high humidity.

It may be necessary to combine two or more of the following cleaning methods to ensure the substrate is completely clean and contaminant free. It is the responsibility of the end-user to ensure the surface is clean and oil free, and properly tested and prepared for graphic and film application.

Graphics, films, or sheeting should be applied immediately after surface cleaning and adequate drying and preparation. Delay will allow dust and contaminants to gather preventing the adhesive from performing as required.

Suggested Tools

Bucket
Clean Sponge/Rag
General Purpose Cleaner (no waxes)
Lacquer Thinner
Lint Free Paper Towel
Prep-Sol™ 3919S
Spray Applicator
Stiff Bristle Brush

Clean the substrate immediately before applying film. Dust and other contaminants can collect quickly on the substrate and prevent the film from adhering properly.

Use detergent and water to clean the substrate:

- *For most surfaces, interior and exterior:* Wash the substrate with 1 ounce of liquid-detergent such as a dishwashing detergent per gallon of lukewarm water - avoid soaps or preparations that contain waxes, oils or lotions. Be aware that some window cleaners contain waxes. This can be followed with a wax and degreaser product such as Rapid Prepto ensure grease and wax is removed.
- Be aware that the chemicals used in some automated vehicle washing equipment may interfere with adhesion
- *For interior walls where grease and/or oil are present on the substrate:* Wash the substrate with a solution of trisodium phosphate (TSP) and lukewarm water. Prepare the solution according to the manufacturer's written instructions.

Dry thoroughly with clean, lint-free paper towels.

***NOTE:** Porous materials absorb moisture and must have adequate time and conditions to dry.

3.0 Standard Method – for lightly soiled surfaces

The surface to which films are applied must be completely clean, smooth, and dry before final preparation.

- Remove all dirt and grime with a commercial synthetic detergent solution and warm water (1 ounce per gallon). Avoid detergents with lotions, waxes, creams, or oils. Be aware some window cleaners have waxes.
- Use of automated car wash facilities requires additional cleaning, as some chemicals used in these systems will prevent complete adhesion of film.
- Interior walls with grease and/or oil present will require special attention to remove contaminants. Prepare a solution of trisodium phosphate and warm water as specified in the manufacturer's instructions, and clean the substrate.
- Thoroughly dry the substrate with a lint free cloth or paper towel. Allow porous materials to dry completely before application.

4.0 Solvent Based Method – for removal of heavy grease and oils

- Saturate a clean, lint free towel or cloth with solvent.
- Clean the substrate with the solvent cloth removing any grease, oils, or dirt.
- After thoroughly wiping with cleaner, dry wipe the surface completely using a clean, soft, lint-free cloth before solvent evaporates.

***NOTE:** There must be no dirt, oil, grease or solvent residue remaining on the substrate prior to decal application.

- As the towels or cloths become dirty, discard and use fresh ones. Accumulated dirt or contaminants on the towel or cloth will prevent effective cleaning of substrate.
- Make sure the surface is completely dry. If necessary, use a heat gun to remove moisture.

Following is a partial list of widely available solvent-based cleaners on the market. This list does not endorse or recommend one product over another. Other similar solvent-based cleaners may be available through automotive, paint, marine, and other outlets.

- DuPont Prep-Sol™ 3919S
- Sherwin Williams R7K156 or R7K158 Sher-Will-Clean™
- Xylol
- VM&P Naptha

CAUTION: Prior to cleaning with solvents, test the cleaning solvent on an inconspicuous area of the application surface to check for potential damage from solvent usage.

CAUTION: Some solvents listed (and unlisted) may leave an oily residue behind, if an oily residue is present, follow this step with 2.3, IPA Cleaning Method to remove residue.

5.0 Isopropyl Alcohol (IPA) Method – for removal of light grease and oils

- Saturate a clean lint free cloth or towel with IPA
 - If using rubbing alcohol do not dilute.
 - If using industrial grade IPA, mix 2:1 water to IPA.
- Wipe the substrate thoroughly, dry wipe with a clean dry towel immediately before the IPA evaporates.
- Discard cloths as they become dirty. Dirty cloths do not clean effectively.
- Make sure the substrate is dry. Use a heat gun to complete process if necessary.

6.0 Light Particle Method – for removal of dust or loose dirt

If only dust or loose dirt is present, and surface has been previously cleaned by one of the previous methods, it may acceptable to use the Light Particulate Method for cleaning.

- Wipe the substrate with a tack cloth, or clean lint free cloth.
- Vacuum surface if slightly textured with a soft-bristled vacuum head.
- Sweep the surface with a soft bristled broom.

7.0 Tin or Alloys of Tin, Copper, Magnesium, Lead, Brass, Brick, Concrete, Painted/Uncoated Steel

Not recommended or warranted for pressure sensitive film applications.

NOTE: ALWAYS TEST PRODUCTS BEFORE APPLICATION. INSTRUCTION BULLETIN DOES NOT REPLACE DATA BULLETIN. THIS DOCUMENT DOES NOT SERVE AS A WARRANTY.

Instructional Bulletin

Application of vinyl and adhesive backed media
Bulletin 2.0
Dated: 01/2008

1.0 Overview

Proper application of vinyl and adhesive backed medias are key for successful decal/graphic installations and maintaining warranties following installation. The information included in this bulletin serves as a guide to follow in order to maintain the aesthetics of the decal/graphic and to insure the life of the decal/graphic. Failure to adhere to these requirements can lead to failure of the installed decal/graphic, including problems such as adhesion loss, bubbling and/or edge lifting. These problems may reduce the durability and performance level of the decal/graphic.

A successful application requires (Some or all of these variables are/or may be outside the control of FDC Graphic Films, Inc.):

- Correct material selection
- Thorough and complete surface preparation
- Proper plotter, software and / or equipment settings
- Proper printing & drying techniques
- Careful laminating and print finishing processes
- Proper installation techniques and tools
- Appropriate cleaning and maintenance procedures

Special attention must be paid when applying the decal/graphic to certain substrates, included primed and / or painted surfaces and certain plastics. It is the responsibility of the end-user to ensure all painted surfaces have been processed and cured per the paint manufacturer's requirements. Failure to follow the paint manufacturer's requirements can lead to decal/graphic failure and/or removal problems.

Certain substrates such as polycarbonate (Lexan) or acrylic sheet require special preparation that may involve allowing proper time for out gassing and/or pre-bake of the substrate prior to the application of any pressure sensitive materials – follow the substrate manufacturer's instructions and reference any FDC surface preparation bulletins.

Suggested Tools

- Squeegees / Applicators
- Xacto Knife
- Scissors
- Air Release Tool
- Wet application Fluid
- Paper Towels / Soft Cloth
- Masking Tape
- Stabilo pencils / White & Black
- Tape measure

2.0 Material Selection

Review of each individual product “Key Features” prior to producing any decal/graphic is recommended. This information can be found under the “Products” tab on FDC’s web page (www.fdcfilms.com). The features of any product may vary from one manufacturer to the next. By reviewing the “Key Features” of each product you can better ensure that you have chosen the correct product for your specific project and/or surface.

Since each product may have different characteristics, it is important to know the application recommendations for the product you have chosen. The ability to apply a graphic/decal wet or dry can also be found on the “ Key Features “ list. Applying a product wet or dry will affect the warranty if the application recommendations have not been followed as listed in the Key Features list and the manufacturer’s warranty guides.

FDC recommends products for certain applications as a guide only. **It is the sole responsibility of the end user to adequately test the product for suitability and fitness of use.**

When overlaying one film over another, always maintain the same film technology in the combination. For example Cast over Cast and Calendered over Calendered. This is to ensure that the expansion and contraction rates of each film in the combination are the same.

*Note: This is a general rule that also applies to laminating films. With the introduction of new high performance calendered films, the testing of each film should be done prior to production or installation.

3.0 Surface Preparation

The Substrate Cleaning and Preparation Instructional Bulletin 1.0 must be reviewed prior to the application of any decal/graphic. When using an FDC Branded Manufacturer’s material (MACtac, 3M, R-Tape Vinyl EFX, Ritrama) review and follow the provided application guides.

4.0 Installation Techniques

Decals/graphics are applied in two basic ways. Dry applied or wet applied. Each method can be done with a few variations in style to apply the vinyl. The following styles of installation take into consideration that the vinyl has been masked with application tape and is ready to be installed. Applying decals/graphics dry is preferable. However, applying a translucent vinyl or graphic to a plastic sign face may be the exception to the rule.

FDC does not recommend any particular application method, however **only certain products are intended for wet application**. Review each product’s “Key Features” to determine if wet application is recommended. It is the end users responsibility if a wet application method is used to ensure the suitability of any application fluids and that all of the fluids are completely evacuated from beneath the decal/graphic.

When installing decals/graphics on a vehicle or trailer, always start at the rear and work your way forward with each panel. This front to back overlap should minimize potential lift problems caused by air during movement.

5.0 Basic Hinge Method – Dry Application

The basic hinge method creates a hinge between the decal/graphic and the surface it is to be applied to. The hinge can be on the top, bottom, left or right side of the decal/graphic. By hinging the decal/graphic you will have control over the direction in which you are applying. The hinge method also helps keep the decal/graphic from moving during application.

After measuring for placement secure your decal/graphic in the top corners with small pieces of tape. The basic hinge method is formed by placing tape half on a straight edge of the decal/graphic and half on the application

surface. You can now flip the decal/graphic towards the hinged side to allow for removal of the backing paper to expose the adhesive surface. Starting in the center of the hinged side make overlapping strokes in each direction using firm pressure to apply the decal/graphic to the application surface. Remove the application tape by pulling from one corner 180 degrees against itself so as not to lift the decal/graphic from the surface.

An alternate basic hinge method allows for the separation of text into smaller sections for easier application. Any line of text that has separation between the letters will allow for this method. Cut the decal/graphic between the letters from the bottom up toward the hinge. Be careful not to scratch the application surface while cutting. You will be left with several individually hinged decals/graphics to apply one at a time.

When using this method in an outdoor installation wind may become a factor make sure the individually hinged decals/graphics that are not currently being applied are taped down while you install the other individually hinged decal/graphic. Apply each individually hinged decal/graphic with the same procedure as before. In a windy installation make sure that the surface is clean and free of debris as you apply each individually hinged decal/graphic.

6.0 Basic Center Hinge Method – Dry Application

After measuring for placement secure your decal/graphic in the top corners with small pieces of tape. The basic center hinge method is formed by placing a line of tape down the center of the decal/graphic with several inches overlapping onto the application surface at both the top and bottom. Choosing one side of the decal/graphic you can now flip the decal/graphic towards the center hinge. Separate the backer from the decal/graphic and the application tape. Cut away the backing paper to expose the adhesive surface. Starting in the center of the hinge make overlapping strokes in each direction using firm pressure to apply the decal/graphic to the application surface. Remove the tape used for the center hinge and follow the previously described procedure to apply the other side of the decal/graphic. Remove the application tape by pulling from one corner 180 degrees against itself so as not to lift the decal/graphic from the surface.

*Note: When using these application methods allowing the tape used to form the hinge to lay over any part of the decal/graphic during application to the surface may cause air to be trapped beneath the decal/graphic. If bubbles form in the decal/graphic use an air release tool (3M Air Release Tool – FDC Part # ACC-391X) to puncture the material. Apply pressure towards the puncture to expel the trapped air. Do not use a blade to puncture the material. Blades will make slits in the material, which over time may develop into larger slits as the material contracts. Air release tools make small holes in the material, which allow it to retain its properties.

7.0 Basic Wet Application Method

*Note: Prior to wet applications please review the application fluid manufacturer's recommendation regarding the suitability of their fluid for the application surface and vinyl.

Wet application will allow you to position your graphic without using a taped hinge if desired. After the decal/graphic is in place, it is applied to surface using firm pressure from the center out to work the application fluid out from under the decal/graphic. Failure to remove all of the application fluid from behind the decal/graphic may cause adhesion issues and bubbling.

Wet application can also use both of basic hinge method or the basic center hinge method for application. Use caution not to get the paper backer wet during application. If the paper backer gets wet, the silicon layer can flake off and cause contamination of the adhesive or the decal/graphic may have paper from the liner stuck to the adhesive. Attempting to remove the paper from the adhesive can cause damage to the adhesive and lead to material failure due to adhesion loss. Backlit signs will show dark blotches if stuck liner paper is not fully removed.

After removing the application tape, re-squeegee the decal/graphic using a covered applicator with a low-friction sleeve to protect the surface from scratching

Make sure translucent films are applied with the least amount of overlaps. When translucent vinyls are overlapped they will give the illuminated sign a darker line where they are overlapping one another. Seams on illuminated signs generally should not exceed 1/16 inch. This is to take into consideration the vinyl will shrink and leave a white area when illuminated.

8.0 Edge Sealing

Sealing the edge of a decal/graphic is recommended to extend the durability and may be necessary in demanding applications, especially where fuels, solvents or corrosives will come in contact with the decal/graphic. Edge Sealer can be applied to the exposed edges of vinyl film to help prevent lifting. Environmental exposure, cleaning and/or solvent printing may cause lifting. Edge Sealing is recommended for reflective films and R-Tape Vinyl EFX metallized films.

9.0 Cleaning & Maintenance

Cleaning and graphic maintenance are often overlooked variables to a successful sign or graphic installation. Cleaning recommendations for a printed or unprinted graphic may differ. It is always best to avoid harsh chemicals such as toluene, MEK, or gasoline whether the graphics are printed or not. Household cleaners such as Windex, Formula 409, TSP or any abrasive cleaner are specifically not recommended. Graphics with certain overlaminates, such as Tedlar may be resistant to more aggressive chemicals. Always check first.

For general cleaning, FDC recommends the following instructions and cleaning agents to be used:

1. Rinse surface well with lukewarm water to remove any dirt.
2. Wash surface with mild soap and lukewarm water.
3. With a soft cloth or sponge gently wash to loosen remaining dirt and grime. Do Not Scrub or use Squeegees or Brushes on surface. The face surface may be UV-resistant and color fade resistant not mar-resistant.
4. Repeat the rinse and allow the surface to dry, use a clean, soft lint free cloth to prevent water spotting.

*Note: When using a sponge or cloth make sure it doesn't contain contaminants from prior use.

After installation, a non-solvent wax may be applied to colored vinyl films, or films with a clear overlaminate. It is best to wait until the adhesive has fully set, which is 24 to 48 hours, before waxing. Never clean dry erase films FDC Series 4305/4355 with any cleaners other than dry erase cleaner fluid and dry tissue or soft cloth. This cleaning fluid can be obtained from an office supply store.

FDC cannot take responsibility for damage from power washing a decal/graphic. When power washing decals/graphics or brush scrubbing extreme care should be taken in order to avoid damage to the decal/graphic. Never power wash or brush the decal/graphic from the edge towards the center as this may cause lifting or tearing. The exposed edge can also start a process where the decal/graphic continues to lift from the substrate, entrapping dirt and other foreign materials. Never use a power washer wand angle under 60 degrees to the surface. Low angle water streams increase the chance of lifting. Use a wide spray pattern and low-pressure power wash settings.

10.0 FDC Product Durability

FDC products have an expected life and durability based on proper product selection, the design of the product, proper processing, application, graphic placement, and maintenance. Following are several factors that can affect a product's expected life or durability.

Outdoor Use:

Not all FDC products are intended or rated for outdoor use. Products with an outdoor durability listed as "NA" or "NO" in FDC literature are not intended for outdoor use. Information regarding each products' outdoor durability can be found in the product data bulletin, color card, digital line card or distributor manual.

Non-Vertical Application and Exposure:

FDC products are intended for vertical application and exposure. Non-vertical application and exposure can reduce their expected life and durability by a minimum of two years or 50%, and in some cases prematurely begin to fail in a matter of weeks. More significant material deterioration can occur from non-vertical application and exposure depending on the material type, environmental conditions and/or area of the country.

Front of Vehicle Application:

Applying decals/graphics to areas on the front of a vehicle or trailer can lower their expected life and durability. These areas can receive overexposure from road debris, airflow and insects, all of which can damage a decal/graphic. Overlaminating digital prints and edge sealing decals/graphics applied in these areas may help maintain their durability.

Spill Areas:

Applying decals/graphics to spill areas can lower their expected life and durability. Spill areas include around gas caps, load areas on tankers or other areas where liquids can spill and make contact with the decal/graphic.

Solvents and Chemicals:

Avoid exposing decals/graphics to solvents or harsh chemicals (such as toluene, MEK, or gasoline). Solvents or harsh chemicals can attack the face stock or adhesive causing the decal/graphic to fail.

Abrasion:

Regular or continuous abrasion can cause damage to decals/graphics. Abrasion can be caused by any of a number of factors, for example foot traffic for floor graphics, or tree branches scraping the side of a vehicle or trailer. Abrasion can cause decals/graphics to lift, damage to the finish and/or damage to the face stock. This damage can lower a decal/graphic's expected life and durability. An overlaminating film can assist in maintaining a graphic's aesthetic appearance and otherwise minimize damage to the graphic caused by abrasion.

1.0 Overview

The purpose of this bulletin is to provide general removal instructions useful in many situations. When selecting a removal method there are many factors to consider, including: material type, adhesive type, material age and exposure conditions. Always test a small area before removal to ensure that the substrate will not be damaged. FDC does not recommend a particular removal method.

Suggested Tools

Cleaning Solvent
Knife
Propane Torch or Heat Gun
Putty Knife
Razor Blade

2.0 Cold Removal Method

Cold removal involves carefully lifting a corner of the decal/graphic and pulling away from the surface to remove the entire decal/graphic. Lifting a corner of the decal/graphic can be achieved with the use of a fingernail, putty knife, knife or razorblade. Once a corner has been lifted, grasp the decal/graphic with your hand and pull the decal/graphic away from the surface. Minimizing the degree of the pull angle will reduce the potential for residual adhesive remaining on the surface. Typically an angle of less than 45° will achieve this.

Removing decals/graphics from glass is the only time that metal blades should be used.

If the temperature is below 50° F (10° C), there may be difficulty with the cold removal method. This difficulty may cause tearing of the decal/graphic or excessive residual adhesive remaining on the surface. If these situations arise, the heat removal method (below) is recommended.

3.0 Heat Removal Method

With a propane torch or heat gun, heat entire decal/graphic by holding heat source approximately 6 to 12 inches (15 – 30 cm) away from the surface. After heating the entire decal/graphic for approximately 30-60 seconds, loosen a corner of the decal and pull the decal/graphic back slowly. A slow, steady pulling and lifting action at less than a 90° angle will usually prevent the film from breaking and will remove most of the adhesive from the surface. If the decal/graphic becomes hard to pull, stop, reheat the decal/graphic and proceed with removal.

4.0 Residual Adhesive

After removing vinyl films there may be a residual adhesive remaining on the surface. Use only professional grade products to remove this adhesive, use caution when selecting them and always follow the manufacturer's guidelines for use. Always test an inconspicuous area to ensure that the remover will not damage the substrate, or if painted, remove or damage the paint.

5.0 Chemical Removal Method

If you are unable to remove the graphic with either the cold removal method or the heat removal method, you can try the chemical removal method. This method involves applying a chemical on the decal/graphic to degrade the adhesive before removing the decal/graphic.

FDC IMAGING does not specifically recommend any particular product for chemical removal. There are several available from a variety of sources including: Rapid Remover™, GAP Orange Peel Adhesive Remover, Clearstar Adhesive Remover. Follow the instructions on the product regarding handling & use.

Generally, this process involves applying the product to the installed decal/graphic. Waiting a period of time for the product to activate and soften the vinyl and adhesive. Always test an inconspicuous area to ensure that the remover will not damage the substrate, or if painted, remove or damage the paint.

After waiting the required time, peel the decal /graphic from the surface. A pressure washer may be necessary to assist with removal, a pressure setting of 2500 PSI has been found to be effective. Also a putty knife or plastic blade can be used starting at the edge of the graphic to scrape away the vinyl and adhesive. Whether using the water or scraper method, take extra care not to damage the surface. Repeated applications of the remover may be necessary to clean off any remaining adhesive.

After the vinyl and adhesive residue have been removed from the surface, it may be cleaned with soap and water. If installing new graphics on the same surface, refer to surface preparation instructions prior to application.

6.0 Precautions

- Always test the suitability of the chosen chemical or solvent for the particular substrate surface. If any damage is visible, do not proceed with the removal.
- Solvents are flammable. Do not use or store solvents near heat, sparks or open flames.
- Avoid prolonged breathing of solvent vapors. Work only in well-ventilated areas with sufficient air exchange to prevent vapor build-up. Avoid eye and skin contact.
- Follow all instructions and Safety Warnings on solvent and chemical containers.

NOTE: THIS DOCUMENT DOES NOT SERVE AS A WARRANTY.

1.0 Overview

Many factors affect digital printing. This bulletin provides some general guidelines and recommendations to assist you in digital printing.

2.0 Material Selection

Selecting the right product to meet the requirement of your project is essential. All products vary in composition, performance and features. Prior to using any product review the provided Key Features, Product Data Bulletin and Special Instructions. Complete product information is available online at www.fdcfilms.com.

Test and qualify all products prior to use. FDC provides free product samples for this purpose. It is the end users responsibility to determine if a product is suitable for their particular use.

3.0 Printing

When possible always use the manufacturer's provided media profile for your particular printer, RIP and ink type. In the absence of a provided profile use the closest available profile to match the particular media's face stock.

Over-saturation of the media can cause weakening of the media and damage to the adhesive. This damage can cause failure such as edge curling, adhesion loss and/or bubbling. Saturation of the media is not recommended past a 200% ink level.

4.0 Ink Drying

Heater settings for printing and ink drying times vary by manufacturer and media type, always check your printer and ink manufacturer's suggested settings. It is very important to allow prints the proper time to dry and fully cure prior to handling or laminating. Dry time is the time it takes for the printed surface to dry to the touch. Cure time is the time it takes for the ink to fully attach to the media. Inks may be dry to the touch, but not fully cured. While drying do not allow the printed side to come in contact with itself or stack prints on top of each other until they have been fully cured. Prints should rest for 24 hours to allow for the ink to fully outgas and properly cure prior to handling, installing or laminating.

5.0 Laminating

When laminating over a print always maintain the same film technology in the combination. For example Cast over Cast and Calendered over Calendered. This is to ensure that the expansion and contraction rates of each film in the combination are the same. Some medias require a specific laminate for their special use or warranty. To aid in selecting the right laminate an Overlamine Recommendation Guide is available in the FDC Digital Media Product Offering.

When using liquid laminates always refer to the manufacturer's guidelines and test prior to use. Some liquid laminates use the same technology as the ink to bond to the media. Heavy or uneven coats of liquid laminate may cause the ink to release from the media.

6.0 Contour Cutting

Digital medias and laminates are available in varying thicknesses; always perform a test cut to determine the proper depth prior to processing. Due to the varying properties of face stocks and adhesives some products may not be suitable for full bleed printing and cutting. Solvent inks can cause media to shrink as they outgas. Most products will experience some degree of this, with cast films providing the most stable media. To prevent edge curling an unprinted border of ¼” is recommended on prints and may need to be increased depending on the size of the finished graphic.

7.0 Application Tape

Most tape manufacturers make special products for digital prints to ensure that they do not lift the ink or the laminate during removal. If using application tape on a digital print it is recommended that you use one specifically designed for this application. Many digital prints can be applied without application tape, however it may be useful when working with contour cut graphics to hold complex shapes and pieces in the correct place during application.

8.0 Application

Please see FDC Application Instructional Bulletin 2.0.

9.0 Edge Sealing

Sealing the edge of a print is recommended to extend the durability, prevent edge lift and may be necessary in demanding applications, especially where fuels, solvents or corrosives will come in contact with the print. Environmental exposure, cleaning or solvent printing may also cause a graphics edges to lift and curl.

Please contact FDC Technical Support with any other questions by calling 800-634-7523.

Note: Special instructions are provided to assist the end user in the application of this product and are given without a guarantee and do not constitute a warranty. It is the responsibility of the end user to test and qualify any procedure prior to use to determine its suitability.

Selecting a Paint Mask - Reference Chart

v060712

Series:	Description:	Adhesive:	Bond:	Available Colors:	Use w/ Baking Cycle:
2900	Premium Paint Mask	Removable	Strong	2 - White (002), Yellow (006)	No
2901	Promotional Paint Mask	Low Tack Removable	Light	4 - White (002), Black (003), Yellow (006), Sapphire Blue (017)	No
2905	Premium Paint Mask - High Temp	Removable	Strong	1 - Yellow (006)	Yes

*Information is provided for reference only. Please read each series Product Data Bulletin for complete information.

Selecting an Application Tape - Reference Chart

v052815

				Suggested Applications									
				General Sign Work	Air Egress Vinyl	Banners	Concrete, Asphalt Graphics	Craft and Hobby	Digital Prints	Films with a Tight Release Liner	Frosted Windows	Thermal Die Cuts	Wall Graphics
RTape	2600	4075	ApliTape™: High Tack, Standard Paper	•									
RTape	2602	4000	ApliTape™: Low Tack, Standard Paper				•						
RTape	2612	AT60n	Clear Choice®: Medium Tack	•					•				•
RTape	2614	4075 RLA®	Conform®: High Tack, Standard Paper	•									
RTape	2615	4050 RLA®	Conform®: Medium Tack, Standard Paper			•							
RTape	2616	4775 RLA®	Conform®: High Tack, Premium Paper	•									
RTape	2627	4076 RLA®	Conform®: High Tack, Standard Paper							•			
RTape	2659	AT75	Clear Choice®: Embossed High Tack							•		•	
RTape	2664	4078 RLA®	Conform®: Medium Tack, Standard Paper				•		•				•
RTape	2665	4761 RLA®	Conform®: High Tack, Heavy Weight Paper		•								
RTape	2667	AT65	Clear Choice®: High Tack							•	•		
FDC	2668	----	Craft and Hobby Application Tape	•				•					
FDC	2670	----	Clear Craft and Hobby Application Tape	•				•					

*Information is provided for reference only. Please read each series Product Data Bulletin for complete information.

Thermal Advantage™ Application Instructions

010815

Series Punched	Type	Film Technology	Application	Printing	9404 Print Mask Required	Print/Cut Weed	Preheat	Temperature	Pressure	Time Seconds	Peel	Layer
9000 9050	Opaque	Polyurethane	100% Polyester 100% Cotton Poly/Cotton Blends	N/A	No	Reverse	5 Seconds	302° F	Medium	10** Seconds	Hot	Yes
9001 9051	Fluorescent	Polyurethane	100% Polyester 100% Cotton Poly/Cotton Blends	N/A	No	Reverse	5 Seconds	302° F	Medium	10** Seconds	Hot	Yes
9002 9052	Jersey Opaque	PVC	100% Polyester 100% Cotton Poly/Cotton Blends	N/A	No	Reverse	5 Seconds	305° F	Medium	15 Seconds	Cold	Yes*
9003 9053	Premium Opaque	Polyurethane	100% Polyester 100% Cotton Poly/Cotton Blends Nylon and Leather	N/A	No	Reverse	5 Seconds	320° F	Light	10** Seconds	Hot	Yes
9004 9054	Stretch Opaque	Polyurethane	100% Polyester 100% Cotton Poly/Cotton Blends Spandex and Leather	N/A	No	Reverse	5 Seconds	305° F	Medium - Firm	15** Seconds	Hot	Yes
9100 9150	Reflective	Retroreflective	100% Polyester 100% Cotton Poly/Cotton Blends Lycra®, Spandex, Nylon and Leather	N/A	No	Reverse	5 Seconds	305° F	Medium - Firm	5 Seconds Peel Hot Press Again 5 Seconds	Hot	Yes
- 9100 Series has a clear protective layer over the cut side, remove before processing.												
9105 9155	Glitter	PVC	100% Polyester 100% Cotton Poly/Cotton Blends	N/A	No	Reverse	5 Seconds	325° F	Medium	10** Seconds	Cold	Yes*
9106 9156	Metal Flake	PVC	100% Polyester 100% Cotton Poly/Cotton Blends Leather	N/A	No	Reverse	5 Seconds	320° F	Firm	10 Seconds	Cold	No
9107 9157	Hot Metallic	Polyurethane	100% Polyester 100% Cotton Poly/Cotton Blends Leather	N/A	No	Reverse	5 Seconds	305° F	Medium	10** Seconds	Hot	Yes
9200 9250	Flock	Nylon	100% Polyester 100% Cotton Poly/Cotton Blends	N/A	No	Reverse	5 Seconds	320° F	Medium	15 Seconds	Cold	Yes
9300 9350	Print Media: White	PVC	100% Polyester 100% Cotton Poly/Cotton Blends Lycra®, Spandex, Nylon and Leather	Thermal Transfer, Solvent and Eco Solvent	Yes	Right Read	5 Seconds	330° F	Light	12 Seconds	Cold	Yes*
9302 9352	Print Media: Clear	PVC	100% Polyester 100% Cotton Poly/Cotton Blends	Thermal Transfer, Solvent and Eco Solvent	No	Reverse	5 Seconds	330° F	Medium	10 Seconds	Hot	No
- 9302 Series has a pink protective layer over the print side, remove before printing.												
9303 --	Print Media: White	Polyurethane	100% Polyester 100% Cotton Poly/Cotton Blends	Solvent and Eco Solvent	Yes	Right Read	5 Seconds	330° F	Medium	15 Seconds	Hot	Yes

Peel: Hot = Immediate, Warm = 5 Seconds, Cold = 10 Seconds

Print Mask is a polyester mask designed to lift printable heat transfer films from their carrier and position them on textiles.

*This film should be on top when layered with compatible products.

**When layering this film the first layer requires only 1 second to bond prior to applying another layer. The final layer should be pressed for the full time.

Information provided is for reference only. Please see each series Product Data Bulletin for complete information. Test prior to use.

Thermal Advantage™ Care Instructions

010815

Series Punched	Type	Washability	Wait	Turn Inside Out	Machine Wash	Water Temp	Detergent	Dryer Temp	Bleach	Dry Clean	Other
9000 9050	Opaque	Excellent	24 hours prior to washing	Yes	Yes	Cold	Mild	Normal Settings	No	No	Follow All Garment Instructions
9001 9051	Fluorescent	Excellent	24 hours prior to washing	Yes	Yes	Cold	Mild	Normal Settings	No	No	Follow All Garment Instructions
9002 9052	Jersey Opaque	Excellent	24 hours prior to washing	Yes	Yes	Warm	Mild	Normal Settings	No	No	Follow All Garment Instructions
9003 9053	Premium Opaque	Excellent	24 hours prior to washing	Yes	Yes	Cold	Mild	Normal Settings	No	No	Follow All Garment Instructions
9004 9054	Stretch Opaque	Excellent	24 hours prior to washing	Yes	Yes	Cold	Mild	Normal Settings	No	No	Follow All Garment Instructions
9100 9150	Reflective	Good	24 hours prior to washing	Yes	Yes	Cold	Mild	Normal Settings	No	No	Follow All Garment Instructions
9105 9155	Glitter	Excellent	24 hours prior to washing	Yes	Yes	Warm or Hot	Mild	Normal Settings	No	No	Follow All Garment Instructions
9106 9156	Metal Flake	Excellent	24 hours prior to washing	Yes	Yes	Cold	Mild	Normal Settings	No	No	Follow All Garment Instructions
9107 9157	Hot Metallic	Excellent	24 hours prior to washing	Yes	Yes	Cold	Mild	Normal Settings	No	No	Follow All Garment Instructions
9200 9250	Flock	Excellent	24 hours prior to washing	Yes	Yes	Cold	Mild	Normal Settings	No	No	Follow All Garment Instructions
9300 9350	Print Media: White	Excellent	24 hours prior to washing	Yes	Yes	Cold	Mild	Normal Settings	No	No	Follow All Garment Instructions
9302 9352	Print Media: Clear	Excellent	24 hours prior to washing	Yes	Yes	Cold	Mild	Normal Settings	No	No	Follow All Garment Instructions
9303 --	Print Media: White	Excellent	24 hours prior to washing	Yes	Yes	Cold	Warm	Normal Settings	No	No	Follow All Garment Instructions

Series	CPSIA Compliance
9000	CPSIA Compliant - Phthalate Free, Lead Free
9001	CPSIA Compliant - Phthalate Free, Lead Free
9002	This product is not CPSIA Compliant
9003	CPSIA Compliant - Phthalate Free, Lead Free
9004	CPSIA Compliant - Phthalate Free, Lead Free
9100	CPSIA Compliant - Phthalate Free, Lead Free
9105	CPSIA Compliant - Phthalate Free, Lead Free
9106	CPSIA Compliant - Phthalate Free, Lead Free
9107	CPSIA Compliant - Phthalate Free, Lead Free
9200	This product is not CPSIA Compliant
9300	This product is not CPSIA Compliant
9302	CPSIA Compliant - Phthalate Free, Lead Free
9303	CPSIA Compliant - Phthalate Free, Lead Free
9404	N/A

THE **POWER** OF **FDC**
GRAPHIC FILMS, INC.

SIGN & DIGITAL MEDIA

Thermal Advantage™ Color Selector



FDC®

Spring 2015

Heat Transfer Films For Textiles

9000 Opaque

Film Technology - Polyurethane
Mil - 3.5
Peel - Hot
Mask Required - No
CPSIA Compliant - Yes

* [Glow In The Dark](#)

Color Number/Name	Color Number/Name	Color Number/Name	Color Number/Name
002 White	268 Fireworks	257 Lime Green	011 Dark Blue
048 Camel	056 Hot Pink	247 Vibrant Green	074 Royal Purple
182 Sunbeam Yellow	001 Red	106 Medium Green	260 Desert Taupe
025 Sunflower	060 Bright Cardinal Red	170 Dark Forest Green	008 Brown
006 Yellow	023 Deep Red	190 Cool Water	028 Dove Grey
133 Tangerine	012 Burgundy	018 Olympic Blue	003 Black
280 Light Pink	159 Wineberry	108 Peacock	007 Silver
076 Magenta	137 Deep Purple	130 Teal Blue	004 Gold
253 Lilac	036 Lite Green*	005 Blue	

9003 Premium Opaque

Film Technology - Polyurethane
Mil - 3.5
Peel - Hot
Mask Required - No
CPSIA Compliant - Yes

002 White	001 Red	074 Royal Purple	028 Dove Gray
006 Yellow	005 Blue	003 Black	007 Silver
133 Tangerine			

9001 Fluorescent

Film Technology - Polyurethane
Mil - 3.9
Peel - Hot
Mask Required - No
CPSIA Compliant - Yes

006 Yellow	076 Magenta	069 Green
009 Orange	057 Raspberry	005 Blue

9002 Jersey Opaque

Color Number/Name

Color Number/Name

Color Number/Name

Color Number/Name

Film Technology - PVC
Mil - 6.5
Peel - Cold
Mask Required - No
CPSIA Compliant - No

002
White

060
Bright Cardinal Red

005
Blue

007
Silver

025
Sunflower

012
Burgundy

028
Dove Grey

004
Gold

133
Tangerine

106
Medium Green

003
Black

9100 Reflective

Film Technology - Retroreflective
Mil - 5.9
Peel - Hot
Mask Required - No
CPSIA Compliant - Yes

067
Primrose Yellow

009
Orange

007
Silver

003
Black

* Remove clear protective liner before processing

9105 Glitter

Film Technology - PVC
Mil - 12.8
Peel - Cold
Mask Required - No
CPSIA Compliant - Yes

007
Silver

008
Brown

074
Royal Purple

017
Sapphire Blue

271
Black Diamond

273
Fool's Gold

164
Amethyst

192
Neptune

195
Onyx

001
Red

075
Lavender

257
Lime Green

272
Multi Platinum

160
Dark Magenta

003
Black

106
Medium Green

205
Aztec Gold

163
Pink

005
Blue

024
Dark Green

004
Gold

198
Vivid Rose

191
Aquamarine

274
Burnt Orange

057
Raspberry*

030
Dark Blue

* Translucent color, for use
on white or light colors

Heat Transfer Films

9200 Flock

Color Number/Name

Color Number/Name

Color Number/Name

Color Number/Name

Film Technology - Nylon
Mil - 14.0
Peel - Cold
Mask Required - No
CPSIA Compliant - No

002
White

056
Hot Pink

108
Peacock Blue

168
Plum

182
Sunbeam Yellow

014
Tomato Red

130
Teal Blue

028
Dove Grey

025
Sunflower

060
Bright Cardinal Red

005
Blue

003
Black

133
Tangerine

106
Medium Green

011
Dark Blue

9300 Print Film

Film Technology - PVC
Mil - 4.7
Peel - Cold
Mask Required - Yes
CPSIA Compliant - No

002
Gloss White

9302 Print Film

Film Technology - PVC
Mil - 3.5
Peel - Cold
Mask Required - No
CPSIA Compliant - Yes

* [Remove pink protective liner before printing](#)

000
Clear (Matte)

300
Ultra Clear (Gloss)

9303 Print Film

Film Technology - Polyurethane
Mil - 2.75
Peel - Hot
Mask Required - Yes
CPSIA Compliant - Yes

002
Gloss White

049
Matte White

Product Selector

Feature	9000 Opaque	9001 Fluorescent	9002 Jersey	9003 Premium Opaque	9100 Reflective	9105 Glitter	9200 Flock	9300 Print Film	9302 Print Film	9303 Print Film
Film Technology	Polyurethane	Polyurethane	PVC	Polyurethane	Retroreflec- tive	PVC	Nylon	PVC	PVC	Polyurethane
Cotton	X	X	X	X	X	X	X	X	X	X
Polyester	X	X	X	X	X	X	X	X	X	X
Blend	X	X	X	X	X	X	X	X	X	X
Spandex					X			X		X
Leather				X	X			X		
Nylon				X	X			X		
Layerable	X	X	X*	X	X	X	X*	X*		X
Washability	Excellent	Excellent	Excellent	Excellent	Good	Excellent	Excellent	Excellent	Excellent	Excellent
Printing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Latex, Thermal Transfer, Solvent and Eco Solvent	Thermal Transfer, Solvent and Eco Solvent	Latex, Solvent and Eco Solvent

*This film should be the top layer when used with compatible films.

Application Instructions

Print/Cut, Weed		Preheat	Position	Cover	Press	Peel	Done			
 Reverse	 Right Read									
Feature	9000 Opaque	9001 Fluorescent	9002 Jersey	9003 Premium Opaque	9100 Reflective	9105 Glitter	9200 Flock	9300 Print Film	9302 Print Film	9303 Print Film
9404 Print Mask Required	No	No	No	No	No	No	No	Yes	No	Yes
Print/Cut, Weed	Reverse	Reverse	Reverse	Reverse	Reverse	Reverse	Reverse	Right Read	Reverse	Right Read
Preheat	5 seconds	5 seconds	5 seconds	5 seconds	5 seconds	5 seconds	5 seconds	5 seconds	5 seconds	5 seconds
Temperature	302° F	302° F	305° F	320° F	305° F	325° F	320° F	330° F	320° F	330° F
Pressure	Medium	Medium	Medium	Light	Medium	Medium	Medium	Light	Medium	Medium
Time	10 seconds**	10 seconds**	15 seconds	10 seconds**	5 seconds, peel hot, repress 5 seconds	10 seconds	15 seconds	12 seconds	10 seconds	15 seconds
Peel	Hot	Hot	Cold	Hot	Hot	Cold	Cold	Cold	Hot	Hot

Peel: Hot = Immediate, Warm = 5 seconds, Cold = 10 seconds

9404 Print Mask is a polyester mask designed to lift printable heat transfer films from their carrier and position them on textiles.

**When layering this film, the first layer requires only 1 second to bond prior to applying another layer. The final layer should be pressed for the full time. Information is provided for reference only. Please read each series Product Data Bulletin for complete information.



Spring 2014 • CC0149000-000

Price: \$5.00

Batch •

Heat Transfer Films

9004 Stretch Opaque

Color Number/Name

Color Number/Name

Color Number/Name

Color Number/Name

Film Technology - Polyurethane

Mil - 3.5

Peel - Hot/Cold

Mask Required - No

CPSIA Compliant - Yes

002
White

001
Red

005
Blue

004
Gold

006
Yellow

106
Medium Green

003
Black

007
Silver

113
Tangerine

9106 Metal Flake

Film Technology - PVC

Mil - 4.3

Peel - Cold

Mask Required - No

CPSIA Compliant - Yes

007
Silver

001
Cherry Red

106
Medium Green

191
Aquamarine

004
Gold

003
Black

163
Pink

257
Cracked Silver

107
Mirror Silver

005
Royal Blue

008
Orange

9107 Hot Metallic

Film Technology - Polyurethane

Mil - 3.5

Peel - Hot/Cold

Mask Required - No

CPSIA Compliant - Yes

006
Yellow

160
Dark Magenta Metallic

166
Electric Blue Metallic

004
Gold

009
Orange

165
Lavendar Metallic

020
Copper Metallic

007
Silver

119
Red Metallic

Product Selector

Feature	9004 Stretch Opaque	9106 Metal Flake	9107 Hot Metallic
Film Technology	Polyurethane	PVC	Polyurethane
Cotton	X	X	X
Polyester	X	X	X
Blend	X	X	X
Spandex	X		
Leather	X	X	X
Nylon			
Layerable	X		X
Washability	Excellent	Excellent	Excellent
Printing	N/A	N/A	N/A

Application Instructions

Print/Cut, Weed		Preheat	Position	Cover	Press	Peel	Done
 							
Feature		9004 Stretch Opaque		9106 Metal Flake		9107 Hot Metallic	
9404 Print Mask Required		No		No		No	
Print/Cut, Weed		Reverse		Reverse		Reverse	
Preheat		5 seconds		5 seconds		5 seconds	
Temperature		305° F		320° F		305° F	
Pressure		Medium-Firm		Firm		Medium	
Time		15 seconds		10 seconds		10 seconds	
Peel		Hot or Cold		Cold		Hot or Cold	

Peel: Hot = Immediate, Warm = 5 seconds, Cold = 10 seconds

Information is provided for reference only. Please read each series Product Data Bulletin for complete information.

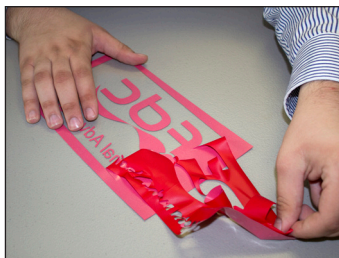


Fall 2014 • CC0149000-003

Price: \$5.00

Batch •

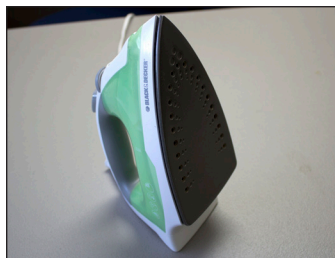
Thermal Advantage™ Household Iron Application Instructions



Remove excess film from graphic



Ensure iron will not use steam during application



Preheat iron to cotton setting†



Place fabric on firm surface



Preheat garment



Place film on garment in desired location



Use a cover sheet or parchment paper



Use FIRM pressure for 10 seconds* to cover entire graphic. Do not slide iron.



Remove the polyester carrier



Replace cover sheet and reheat for another 5-10 seconds*



Wait at least 24 hours before washing

†Temperatures and times may vary
*Double times when applying flock

OTHER FACTORS

Ideal application times and temperatures vary. Please check Product Bulletins before applying Thermal Advantage™ films.

WASHING INSTRUCTIONS

Machine wash WARM with mild detergent
Wait 24 hours before first wash. Washing instructions vary check Product Bulletin.

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- Key Features
- Application Guide
- Accessory Guide
- Build A Part Number

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Intermediate Films

Reflective Films

Translucent Films

Specialty Films

RTape VinylEfx Films

2100
(2200 Punched)

2100
(2200 Punched)

000 Clear	
200 Matte Clear	
002 Gloss White	
049 Matte White	
102 Crystal White	
122 Light Grey	
227 Slate Grey	
028 Dove Grey	
050 Medium Grey	
110 Dark Slate	
052 Dark Grey	
040 Matte Black	
003 Gloss Black	
008 Brown	
250 Sundried Tomato	
174 Taupe	
047 Buckskin	
179 Saddle	

178 Sand Pebble	
068 Beige	
026 Oyster	
107 Almond	
218 Parchment	
048 Camel	
182 Sunbeam Yellow	
231 Golden Yellow (White Adhesive)	
067 Primrose Yellow	
006 Yellow	
123 Dark Yellow	
059 Imitation Gold	
180 Terra Cotta	
248 Pumpkin Orange	
009 Orange	
133 Tangerine	
169 Warm Red	
014 Tomato Red	
125 Wild Cardinal Red	

060 Bright Cardinal Red	
232 Fire Red (Grey Adhesive)	
134 Apple Red	
234 Spectra Red	
001 Red	
042 Deep Cardinal Red	
012 Burgundy	
242 Medium Burgundy	
159 Wineberry	
113 Salmon Pink	
076 Magenta	
124 Fiesta Pink	
056 Hot Pink	
058 Dark Magenta	
114 Raspberry	
135 Dark Orchid	
063 Violet	
253 Lilac	
168 Plum	

2100
(2200 Punched)

2100
(2200 Punched)
Metallics

137
Deep Purple



116
Dark Aqua



007
Silver Metallic



074
Royal Purple



117
Real Teal



254
Bijou Red
Metallic



075
Lavender



246
Aquamarine



194
Pewter
Metallic



225
Copenhagen Blue



071
Teal



120
Charcoal
Metallic



011
Dark Blue



053
Dark Bahama
Blue



121
Dark Charcoal
Metallic



138
Light Navy Blue



130
Teal Blue



195
Onyx Metallic



239
Majestic Blue



129
Medium Teal



255
Broadway
Bronze Metallic



141
Shadow Blue



247
Vibrant Green
(White Adhesive)



161
Light Brown
Metallic



017
Sapphire Blue



257
Lime Green



187
Light Sierra
Metallic



005
Blue



069
Apple Green



020
Copper
Metallic



140
Intense Blue



181
Willow Green



118
Bright Gold
Metallic



214
Medium Blue



061
Kelly Green



004
Gold Metallic



032
Azure Blue



126
Emerald Green



041
Light Gold
Metallic



018
Olympic Blue



106
Medium Green



186
Champagne
Metallic



108
Peacock Blue



024
Dark Green



205
Aztec Gold
Metallic



139
Wedgewood Blue



142
Forest Green



119
Red Metallic



252
Sea



170
Dark Forest
Green



145
Light Rose
Metallic



196
Garnet Metallic



039
Burgundy
Metallic



2100

- Film Technology • Cast
- Outdoor Durability • 9 Years Opaque,
6 Years Metallic
- Adhesive/Color • Permanent/Clear
(Exceptions Noted)
- Conformability • Flat and simple curves,
rivets and corrugations

2301
(2351 Punched)

3700
(3750 Punched)
Ultra Metallics

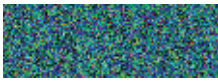
160
Dark Magenta
Metallic 

164
Royal Purple
Metallic 

165
Lavender
Metallic 

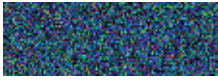
189
Periwinkle
Metallic 

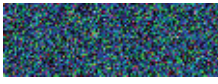
127
Mist Blue
Metallic 

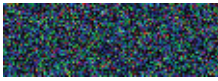
190
Cool Water
Metallic 

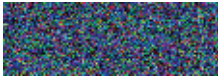
045
Blue Metallic 

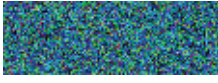
111
Bright Blue
Metallic 

166
Electric Blue
Metallic 

030
Dark Blue
Metallic 

243
Grand Blue
Metallic 

146
Steel Blue
Metallic 

191
Aquamarine
Metallic 

192
Neptune
Green Metallic 

256
Mountain Mist
Metallic 

193
Seafoam
Metallic 

167
Forest Green
Metallic 

150
Dark Green
Metallic 

002
White
(Blue Liner) 

003
Black 

000
Clear 

026
Oyster 

005
Blue 

011
Dark Blue 

017
Sapphire Blue 

126
Kelly Green 

135
Primrose
Yellow 

025
Sunflower 

009
Orange 

125
Wild Cardinal
Red 

014
Tomato Red 

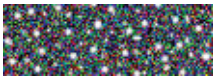
053
Cardinal Red 

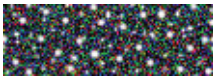
268
Deep
Burgundy 

004
Gold 

007
Silver 

261
Diamond Dust 

195
Onyx 

003
Black 

008
Brown 

004
Gold 

260
Desert Taupe 

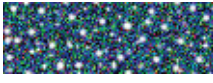
001
Red 

125
Wild Cardinal
Red 

057
Raspberry 

075
Lavender 

164
Amethyst 

030
Dark Blue 

017
Sapphire Blue 

019
Cool Blue 

071
Teal 

024
Dark Green 

4307
(4357 Punched)

2301

Film Technology - Engineered
Outdoor Durability - 8 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat and simple curves,
rivets and corrugations

3700

Film Technology - Cast
Outdoor Durability - 5 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat and simple curves

4307

Film Technology - Calendered
Outdoor Durability - 6 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat and simple curves

002
Gloss White



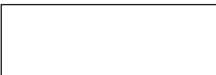
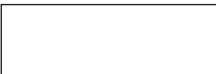
000 Clear		067 Primrose Yellow		011 Dark Blue	
200 Matte Clear		025 Sunflower		266 Patriot Blue	
002 Gloss White		006 Yellow		017 Sapphire Blue	
049 Matte White		133 Tangerine		005 Blue	
102 Crystal White (Blue Liner)		014 Tomato Red		032 Azure Blue	
007 Silver		125 Wild Cardinal Red		018 Olympic Blue	
050 Medium Grey		172 Poppy Red		108 Peacock Blue	
003 Gloss Black		001 Red		071 Teal	
268 Flat Black		012 Burgundy		142 Forest Green	
040 Matte Black		076 Magenta		024 Dark Green	
008 Brown		124 Fiesta Pink		126 Emerald Green	
004 Gold		063 Violet		061 Kelly Green	
068 Beige		075 Lavender		257 Lime Green	
182 Sunbeam Yellow		074 Royal Purple			
080 Matte Yellow		168 Plum			

4200

- Film Technology • Calendered
- Outdoor Durability • 5 Years
- Adhesive/Color • Permanent/Clear
- Conformability • Flat and simple curves

4725
(4775 Punched)

4304
(4354 Punched)
Easy Removable

114 Transparent		237 Classic Red		002 White	
010 Gloss White		063 Geranium Red		003 Black	
020 Matte White		053 Cardinal Red		006 Yellow	
214 Light Ash Grey		001 Red		017 Sapphire Blue	
120 Satin Aluminum		068 Dark Burgundy			
178 Stone Grey		076 Magenta			
012 Gloss Black		075 Lavender			
222 Flat Black		038 Royal Purple			
019 Deep Mahogany Brown		197 Light Navy			
131 Satin Gold		037 Sapphire Blue			
263 New Beige		005 Blue			
080 Matte Yellow		216 Light Blue			
135 Primrose Yellow		057 Olympic Blue			
006 Yellow		262 Baby Blue			
025 Sunflower		071 Teal NEW			
014 Bright Orange		056 Dark Green			
013 Tomato Red		186 Bright Green			

4304

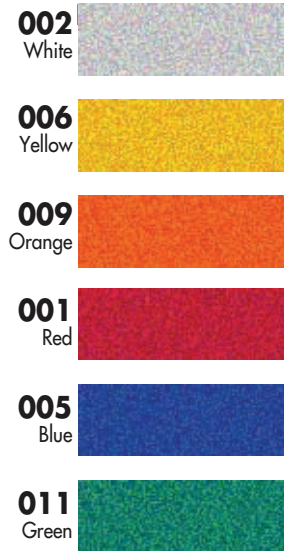
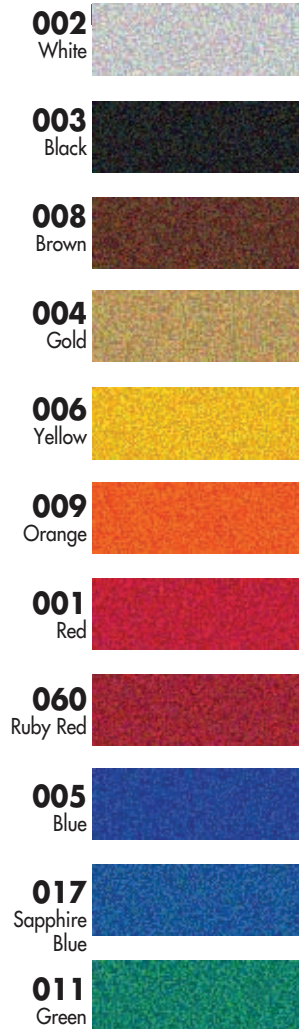
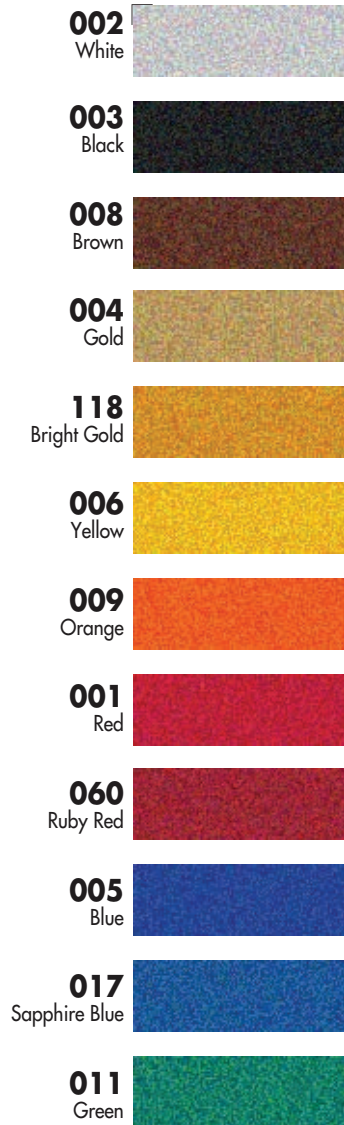
Film Technology - Calendered
Outdoor Durability - 2 Years
Adhesive/Color - Removable/Clear
Conformability - Flat and simple curves

4725

Film Technology - Calendered
Outdoor Durability - 6 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat and simple curves

2407
(2457 Punched)
Engineer Grade Reflective

2409
(2459 Punched)
Utility Grade Reflective



2402

Film Technology - Retro-reflective
Outdoor Durability - 7 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat and simple curves,
rivets and corrugations

2407

Film Technology - Retro-reflective
Outdoor Durability - 7 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat and simple curves,
rivets and corrugations

2409

Film Technology - Retro-reflective
Outdoor Durability - 5 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat surfaces

2500
(2550 Punched)
Translucent

2500
(2550 Punched)
Translucent

020 White		033 Red		156 Turquoise Blue	
197 Silver Grey		125 Scarlet Red		157 Turquoise	
178 Steel Grey		073 Dark Red		162 Teal	
054 Charcoal		049 Burgundy		071 Teal Green	
069 Duranodic		154 Pink Lavender		130 Pacific Blue	
040 Black		198 Vivid Rose		024 Holly Green	
059 Dark Brown		153 Mulberry		126 Vivid Green	
063 Rust Brown		133 Magenta		026 Green	
004 Gold Nugget		155 Plum Purple		061 Kelly Green	
068 Light Beige		011 Dark Royal Blue			
021 Ivory		077 Dark Blue			
005 Maize		087 Royal Blue			
015 Yellow		017 Cobalt Blue			
006 Mango		067 Bright Blue			
044 Orange		018 Olympic Blue			
172 Poppy Red		173 Process Blue			
014 Tomato Red		108 Light Baby Blue			

2500

Film Technology - Cast
Outdoor Durability - 7 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat and simple curves

000
Clear

002
White

2700
(2750 Punched)
Intermediate Fluorescent

076
Magenta

001
Red

009
Orange

006
Yellow

069
Green

005
Blue

004
Gold

007
Silver

2801
(2851 Punched)
Brushed Finish
Polyester

004
Gold

007
Silver

2802
(2852 Punched)
Double Sided
Mirror Finish Polyester

004
Gold

2900
(2950 Punched)
Premium Paint Mask

002
White

006
Yellow

2901
(2951 Punched)
Promotional Paint Mask

002
White

003
Black

006
Yellow

017
Sapphire Blue

2905
(2955 Punched)
Premium Paint Mask

006
Yellow

3300
(3350 Punched)
Imitation Leaf

004
Gold

007
Silver

1203

Film Technology - Calendered
Outdoor Durability - 3 Months
Adhesive/Color - N/A
Conformability - Flat surfaces

2800 & 2801

Film Technology - PET
Outdoor Durability - 2 Years (Silver only)
Adhesive/Color - Permanent/Clear
Conformability - Flat surfaces

2900 & 2901

Film Technology - Calendered
Outdoor Durability - N/A
Adhesive/Color - Low-Tack
Removable/Clear
Conformability - Flat and simple curves

2700

Film Technology - Cast
Outdoor Durability - 2 Years
Adhesive/Color - Permanent/White
Conformability - Flat, simple curves
and corrugations

2802

Film Technology - PET
Outdoor Durability - N/A
Adhesive/Color - Permanent/Clear
Conformability - Flat surfaces

2905

Film Technology - Calendered
Outdoor Durability - N/A
Adhesive/Color - High-Tack Removable/
Clear
Conformability - Flat and simple curves

3300

Film Technology - Polymeric Cast
Outdoor Durability - 5 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat surfaces

007
Frosted



001
Ruby



004
Frosted Gold



000
Clear



3501
(3551 Punched)
Promotional Fluorescent

3506
(3556 Punched)
Promotional Phosphorescent

114
Frosted Rose



002
White
(Blue Liner)



076
Magenta



202
Lite Green



005
Frosted Blue



4306
(4356 Punched)
Enamel Receptive

056
Pink



024
Frosted Green



000
Clear



001
Red



007
Frosted Silver



049
Matte White



009
Orange



006
Yellow



069
Green



005
Blue



3500

- Film Technology - Cast
- Outdoor Durability - 5 Years
- Adhesive/Color - Permanent/Clear
- Conformability - Flat, simple curves and corrugations

3501

- Film Technology - Cast
- Outdoor Durability - 3-6 Months
- Adhesive/Color - Permanent/White
- Conformability - Flat, simple curves and corrugations

3502

- Film Technology - Reprographic
- Outdoor Durability - N/A
- Adhesive/Color - N/A
- Conformability - Flat surfaces

3506

- Film Technology - PVC
- Outdoor Durability - N/A
- Adhesive/Color - Permanent/White
- Conformability - Flat surfaces

3804

- Film Technology - Cast
- Outdoor Durability - 5 Years
- Adhesive/Color - Permanent/Clear
- Conformability - Flat and simple curves

4305

- Film Technology - Calendered
- Outdoor Durability - N/A
- Adhesive/Color - Permanent/Clear
- Conformability - Flat surfaces

4306

- Film Technology - Calendered
- Outdoor Durability - 2 Years
- Adhesive/Color - Permanent/Clear
- Conformability - Flat and simple curves

005
Royal Blue



114
Raspberry



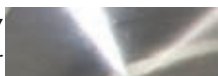
131
Cherry Red



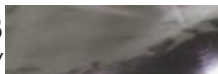
004
P - Gold



007
P - Silver



003
Galaxy



007
P - Silver



004
Gold



131
Cherry Red



005
Royal Blue

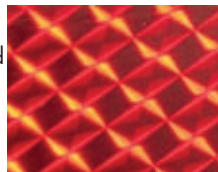


003
Galaxy



2825
(2875 Punched)
RTape VinylEfx® Mosaic

131
Cherry Red



005
Royal Blue



007
P - Silver



004
Gold



069
Fluorescent Green



004
Florentine Leaf Gold



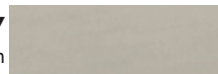
207
P - Fine Brushed Silver



507
P - Matte Silver



107
P - Smooth Mirror Silver



104
P - Smooth Mirror Gold



131
Smooth Mirror Cherry Red



2822, 2824
2825, 2826

Film Technology - Metallized PVC
 Outdoor Durability - N/A
 Adhesive/Color - Permanent/Clear
 Conformability - Flat surfaces

P = Digital Printable D = Decorative OD = Outdoor Durable

052
Dark Grey



4322
EZ Erase™

002
Gloss White



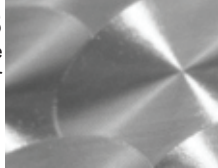
004
Florentine Leaf Gold



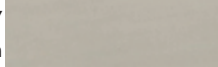
041
P - Large Engine Turn Gold



258
P - Large Engine Turn Silver



107
P - Smooth Mirror Silver



104
P - Smooth Mirror Gold



304
P - Hammered Leaf Gold



207
P - Fine Brushed Silver



204
P - Fine Brushed Gold



507
P - Matte Silver



007
P - Silver



007
Silver



2828 & 4828
(2878 & 4878 Punched)
RTape VinylEfx® Carbon Fibre™

003
Black (2828)

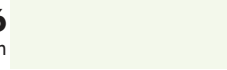


003
Black (4828)



2847
(2897 Punched)
RTape VinylEfx® GloEfx™ Phosphorescent

036
Lite Green



2827, 2828, 2831

Film Technology - Metallized PVC
Outdoor Durability - N/A
Adhesive/Color - Permanent/Clear
Conformability - Flat surfaces

4322

Film Technology - Metallized PVC
Outdoor Durability - N/A
Adhesive/Color - Permanent/Clear
Conformability - Flat Surfaces

4310

Film Technology - Non-PVC
Outdoor Durability - N/A
Adhesive/Color - Removable/Clear
Conformability - Flat Surfaces

4826, 4827, 4828, 4831

Film Technology - Metallized PVC
Outdoor Durability - 3 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat and simple curves

2847

Film Technology - Phosphorescent
Outdoor Durability - N/A
Adhesive/Color - Permanent/Clear
Conformability - Flat and simple curves



Product Title			Characteristics		Processing/Printing							Applications						
Brand	FDC Series	Description	Outdoor Durability (yr.)	Film Thickness (mil.)	Adhesive Permanent/Removable	Computer Cutting	Thermal Transfer Print	Eco Solvent Print	Solvent Print	UV Curable Inkjet Print	Screen Print	Awings	Backlit Sign	Banner	Unit/ Frontlit Sign	Vehicle Marking	Vehicle Wrap	Window
FDC	2100 Series	Premium High Performance Vinyl Film	6-9	2.0	P	●	●	●	●	●	●	●	●	●	●	●	●	●
FDC	2301 Series	Premium High Performance Engineered Film	8	2.4	P	●	●	●	●	●	●	●	●	●	●	●	●	●
FDC	3700 Series	Premium Ultra Metallic Vinyl Film	5	3.0	P	●	●	●	●	●	●	●	●	●	●	●	●	●
FDC	4307 Series	Premium Vinyl Film	6	3.4	P	●	●	●	●	●	●	●	●	●	●	●	●	●
FDC	4200 Series	Intermediate Ultra High Gloss Vinyl Film	5	2.8	P	●	●	●	●	●	●	●	●	●	●	●	●	●
FDC	4304 Series	Intermediate Easy Removable Vinyl Film	2	3.0	R	●	●	●	●	●	●	●	●	●	●	●	●	●
FDC	4725 Series	Intermediate Vinyl Film	6	3.2	P	●	●	●	●	●	●	●	●	●	●	●	●	●
FDC	2402 Series	Premium Engineer Grade Reflective Film	7	5.5	P	●	●	●	●	●	●	●	●	●	●	●	●	●
FDC	2407 Series	Premium Flexible Engineer Grade Reflective Film	7	5.9	P	●	●	●	●	●	●	●	●	●	●	●	●	●
FDC	2409 Series	Intermediate Utility Grade Reflective Film	5	5.9	P	●	●	●	●	●	●	●	●	●	●	●	●	●

Premium

Intermediate

Reflective

P - Permanent Adhesive R - Removable Adhesive
Refer to Product Data Bulletins prior to using product(s).



Product Title			Characteristics			Processing/Printing								Applications				
Brand	FDC Series	Description	Outdoor Durability (Yr.)	Film Thickness (mil.)	Adhesive Permanent/Removable	Computer Cutting	Thermal Transfer Print	Eco Solvent Print	Solvent Print	UV Curable Inkjet Print	Screen Print	Awnings	Backlit Sign	Banner	Unity/ Frontlit Sign	Vehicle Marking	Vehicle Wrap	Window
FDC	2500 Series	Premium Translucent Vinyl Film	7	2.0	P	●						●	●					
FDC	1203 Series	Promotional Static Cling Film	.25	7.5	N/A						●				●			●
FDC	2700 Series	Intermediate Fluorescent Vinyl Film	2	2.0	P	●	●				●			●	●	●		●
FDC	2800 Series	Promotional Metallized Mirror Finish Polyester Film (PET)	0-2	2.0	P	●	●				●			●	●			
FDC	2801 Series	Promotional Metallized Brushed Finish Polyester Film (PET)	2	2.0	P	●					●			●	●			
FDC	2802 Series	Promotional Metallized Double Sided Mirror Finish Polyester Film (PET)	N/A	2.2	P	●												●
FDC	2900 Series	Premium Paint Mask, Removable Adhesive	N/A	3.4	R	●									●			
FDC	2901 Series	Promotional Paint Mask, Low-Tack Removable Adhesive	N/A	3.4	R	●									●			
FDC	2905 Series	Premium Paint Mask - High Temp Removable Adhesive	N/A	3.4	R	●									●			
FDC	3300 Series	Imitation Leaf Vinyl Film	5	4.0	P	●	●	●	●	●	●				●	●		
FDC	3500 Series	Intermediate Etched Glass Vinyl Film	5	2.0	P	●	●				●							●

Translucent

Specialty

P - Permanent Adhesive R - Removable Adhesive
Refer to Product Data Bulletins prior to using product(s).



Product Title			Characteristics		Processing/Printing							Applications						
Brand	FDC Series	Description	Outdoor Durability (yr.)	Film Thickness (mil.)	Adhesive Permanent/Removable	Computer Cutting	Thermal Transfer Print	Eco Solvent Print	Solvent Print	UV Curable Inkjet Print	Screen Print	Awnings	Backlit Sign	Banner	Utility/ Frontlit Sign	Vehicle Marking	Vehicle Wrap	Window
FDC	3501 Series	Promotional Fluorescent Vinyl Film	.25-.5	2.0	P	●	●				●			●	●			●
FDC	3502 Series	Ruby Mask	N/A	1.0	N/A	●												
FDC	3506 Series	Promotional Phosphorescent Vinyl Film	N/A	2.4	P	●	●	●	●	●	●				●			
FDC	3804 Series	Intermediate Frosted Crystal Vinyl Film	5	3.2	P	●	●				●							●
FDC	4305 Series	Promotional Dry Erase Vinyl Film	N/A	4.0	P	●									●			
FDC	4306 Series	Promotional Enamel Receptive Vinyl Film	2	4.0	P	●					●				●			
RTape	2822 Series	VinylEfx® 1 3/8" Multi-Lens® Decorative Series	N/A	3.0	P	●	●	●	●	●	●			●	●			
RTape	2824 Series	VinylEfx® Metal Flake Decorative Series	N/A	3.0	P	●	●	●	●	●	●			●	●			
RTape	2825 Series	VinylEfx® 1/4" Mosaic Decorative Series	N/A	3.0	P	●	●	●	●	●	●			●	●			
RTape	2826 Series	VinylEfx® Chrome Colors Decorative Series	N/A	3.0	P	●	●	●	●	●	●			●	●			

Specialty

P - Permanent Adhesive R - Removable Adhesive
Refer to Product Data Bulletins prior to using product(s).



Product Title			Characteristics		Processing/Printing						Applications							
Brand	FDC Series	Description	Outdoor Durability (yr.)	Film Thickness (mil.)	Adhesive Permanent/Removable	Computer Cutting	Thermal Transfer Print	Eco Solvent Print	Solvent Print	UV Curable Inkjet Print	Screen Print	Awings	Backlit Sign	Banner	Unit/ Frontlit Sign	Vehicle Marking	Vehicle Wrap	Window
RTape	2827 Series	VinylEfx® Diamond Plate™ Decorative Series	N/A	3.0	P	●	●	●	●	●	●			●	●			
RTape	2828 Series	VinylEfx® Carbon Fibre™ Decorative Series	N/A	3.0	P	●	●	●	●	●	●			●	●			
RTape	2831 Series	VinylEfx® Brite Overall™ Decorative Series	N/A	3.0	P	●	●	●	●	●	●			●	●			
RTape	4310 Series	ChalkTalk®	N/A	6.0	R	●									●			
RTape	4322 Series	EZ Erase™	N/A	4.0	P	●									●			
RTape	4826 Series	VinylEfx® Chrome Colors Durable Series	3	3.0	P	●	●	●	●	●	●				●	●		●
RTape	4827 Series	VinylEfx® Diamond Plate™ Durable Series	3	3.0	P	●	●	●	●	●	●				●	●		●
RTape	4828 Series	VinylEfx® Carbon Fibre™ Durable Series	3	3.0	P	●	●	●	●	●	●				●	●		●
RTape	4831 Series	VinylEfx® Brite Overall™ Durable Series	3	3.0	P	●	●	●	●	●	●				●	●		●
RTape	2847 Series	VinylEfx® GloEfx™ Phosphorescent Film	N/A	8.5	P	●	●	●	●	●	●				●			

RTape VinylEfx®

P - Permanent Adhesive R - Removable Adhesive
Refer to Product Data Bulletins prior to using product(s).

Part Number	Category	Description
0039-0008-114	Accessories	3M™ Edge Sealer 8 oz. (6 per box)
0094-0008-029	Accessories	3M™ Tape Primer 94 (1/2 Pint)
0094-0032-029	Accessories	3M™ Tape Primer 94 (1 Quart)
0094-0128-029	Accessories	3M™ Tape Primer 94 (1 Gallon)
0094-9000-029	Accessories	3M™ Tape Primer 94 (1 Ampoule)
2018	Accessories	3M™ Scotch® Fine Line Tape
2050	Accessories	3M™ Scotch® Painters Masking Tape
2600	Application Tape	RTape 4075 ApliTape™ - High Tack, Standard Paper
2601	Application Tape	RTape 4050 ApliTape™ - Medium Tack, Standard Paper
2602	Application Tape	RTape 4000 ApliTape™ - Low Tack, Standard Paper
2612	Application Tape	RTape AT60 Clear Choice® - Medium Tack, Clear
2614	Application Tape	RTape 4075 RLA® Conform® - High Tack, Standard Paper
2615	Application Tape	RTape 4050 RLA® Conform® - Medium Tack, Standard Paper
2616	Application Tape	RTape 4775 RLA® Conform® - High Tack, Premium Paper
2617	Application Tape	RTape 4750 RLA® Conform® - Medium Tack, Premium Paper
2621	Premasking Tape	3M™ Premasking Tape SCPM3 - Low Tack, Paper
2624	Premasking Tape	3M™ Premasking Tape SCPM44X - Low Tack, Paper
2627	Application Tape	RTape 4076 RLA® Conform® - High Tack, Standard Paper
2659	Application Tape	RTape AT75 Clear Choice® - High Tack, Clear
2664	Application Tape	RTape 4078 RLA® Conform® - Medium Tack, Standard Paper
2665	Application Tape	RTape 4761 RLA® Conform® - High Tack, Premium Paper
2667	Application Tape	RTape AT65 Clear Choice® - High Tack, Clear
2668	Application Tape	FDC® - Craft and Hobby Application Tape
2670	Application Tape	FDC® - Clear Craft and Hobby Application Tape
3001	Accessories	78# Bleached Kraft Release Liner Paper
3002	Accessories	90# Bleached Kraft Release Liner Paper



Part Number	Category	Description
3750-0216-047	Accessories	Heavy Duty Tan Package Tape (36 per box)
3750-0216-114	Accessories	Heavy Duty Clear Package Tape (36 per case)
9404-1620-049	Accessories	Teflon Sheet For Heat Transfer (16" x 20")
4016	Foam Tape	3M™ Double Coated Urethane Foam Tape (62 mil.)
4032	Foam Tape	3M™ Double Coated Urethane Foam Tape (31 mil.)
4622	VHB Tape	3M™ VHB™ Tape - General Purpose Adhesive (45 mil.)
4905	VHB Tape	3M™ VHB™ Tape - General Purpose Adhesive Clear (20 mil.)
4910	VHB Tape	3M™ VHB™ Tape - General Purpose Adhesive Clear (40 mil.)
4930	VHB Tape	3M™ VHB™ Tape - General Purpose Adhesive (25 mil.)
4941	VHB Tape	3M™ VHB™ Tape - Conformable Foam (45 mil.)
4949	VHB Tape	3M™ VHB™ Tape - General Purpose Adhesive (45 mil.)
4950	VHB Tape	3M™ VHB™ Tape - General Purpose Adhesive (45 mil.)
5952	VHB Tape	3M™ VHB™ Tape - Modified Acrylic Adhesive (45 mil.)
9473	VHB Tape	3M™ VHB™ Adhesive Transfer Tape with Adhesive 100 MP
ACC-391X	Accessories	3M™ Air Release Tool
ACC-392X	Accessories	3M™ Replacement Point for Air Release Tool
ACC-MPP-1	Accessories	3M™ Power Grip Multi-Pin Air Release Tool
ACC-PA-1-1	Accessories	3M™ Hand Applicator Gold (25 per box)
ACC-PA-1-2	Accessories	3M™ Hand Applicator Blue (25 per box)
ACC-RBA-1	Accessories	3M™ Rivet Brush Applicator 1"
ACC-RBA-3	Accessories	3M™ Power Grip Rivet Brush Applicator 3"
ACC-SA-1-1	Accessories	3M™ Low Friction Sleeve (100 per package)
ACC07SQUE-001	Accessories	MACtac Soft Felt Squeegees (100 per box)
ACC07SQUE-002	Accessories	MACtac Hard Plastic Squeegees (100 per box)
ACC98SQUE-003	Accessories	FDC Squeegee
SP75	Accessories	3M™ #75 Spray Adhesive



Customer Service

For your convenience, our customer service center is open weekdays from 7:00 a.m. to 7:00 p.m. Eastern time. Our knowledgeable customer service representatives can help you select the right product for any application and if necessary make sure it gets shipped the same-day.

Digital Products

FDC offers a full line of digital products so you only need one source for all of your digital and sign vinyl needs. The wide selection of digital media and matched overlaminates is ideal for wide-format solvent and eco solvent printing. Our knowledgeable staff can help you make the right selection for your job.

Heat Transfer Films

It's never been faster or easier to apply logos and graphics to a broad range of fabrics. Thermal Advantage™ films feature a heat activated adhesive designed for use on natural and synthetic fabrics. Our selection includes opaques, fluorescents, reflective, flock, and a specially designed application tape for use with designated digital print materials, plus 3 choices for solvent or ecosolvent printed graphics.

Banner

FDC offers the most requested weights, finishes, widths and lengths of banner material. Available in both regular and super smooth blackout construction, these products are designed for wide-format solvent or eco solvent printing.

Sample Program

FDC offers samples of sign vinyl and digital products, free of charge to our distributors.

- Sample products are available through FDC distributors only.
- Sign Vinyl and Digital products include most core products plus select other series. Not all products in all colors and finishes are available in FDC's sample program.
- Typical Sample Roll Sizes (Check with your FDC representative for specific sizes)
 - Sign Vinyl 15" x 1 foot punched
 - Heat Transfer Films/Cut - 15" x 1 foot (Un-Punched)
 - Heat Transfer Films/Print - 15" x 5 feet (Un-Punched)
 - Digital Media & Laminates 30" x 10 feet
 - Application Tapes at Standard size 6" or 12" x 30 feet
- All stocked products are available in a 5" x 5" sample for color and finish testing.
- Samples are made to order to ensure freshness.
- FDC publishes a complete list of available sign and digital samples.
- FDC Reserves the right to limit quantities or change availability at any time.
- Contact your distributor or FDC Customer Service with your request.

Visit Our Website

Visit our website at www.fdcfilms.com to view our full range of products. While there you can also download the latest ICC profiles, review product data bulletins, find helpful tips and tricks, search for the right product, and more.



0000 - 0000 - 000

The first four (4) digits in our Part Number identify the Series of product and determine the converting process.

Increasing the Non-Perforated product number by 50 identifies all Perforated products with the exception of the 2100 Series where 2200 represents the Perforated product in this Series.

The second four (4) digits identify the material converted size. The first two digits indicate the Width and the last two indicate the Length (see below).

The final three (3) digits identify the Color, and all colors contain three digits.

4200-1515-014

└─┘ Non-perforated 2.8 ml Calendered	└─┘ └─┘ Width = 15" Length = 150' (50 yds.) (The 0 in 150 is hidden)	└─┘ Color 014 (Tomato Red)
--	---	-------------------------------

4250-3003-003

└─┘ Perforated 2.8 ml Calendered	└─┘ └─┘ Width = 30" Length = 30' (10 yds.) (The 0 in 30 is hidden)	└─┘ Color 003 (Gloss Black)
--	---	--------------------------------

Notes

Standard punch is slot pattern. IBM and 3-hole punch patterns are available.





Product Selection

Thousands of sizes and colors for a broad range of vinyl, reflective and tape products are available for shipment today. FDC stocks more than just the most popular colors so you can get what you want without waiting. Plus, we have the complete 3M Graphics Market Center and RTape product lines available by special order from the factory. In addition to an extensive offering of FDC brand sign films, a full line of digital products is also available.

Great Location

FDC ships from South Bend, Indiana. Our central location provides for fast delivery nationwide, for both LTL and package delivery. We reach over twenty states using FedEx ground in two days or less. You get your products faster when you match a great location with FDC's film converting facility that is designed for rapid order turnaround and same day shipment.

Known For Reliability

FDC's reputation for quick reliable shipment is built on over 25 years of experience. Our fill rates regularly exceed 95%. High fill rates mean that your order gets shipped when we promise that it will ship. FDC provides same-day shipment for orders placed by 5 p.m. In the end, reliability is what it is all about. We have the products you need when you need them, we ship them as promised, and they work like they're supposed to.

Our People Make The Difference.



FDC Memo Board Films™

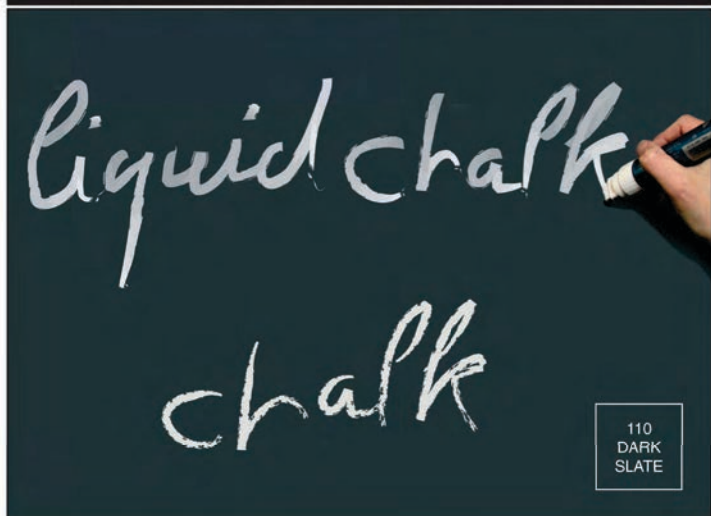
3404 SERIES - FERROUS FILM



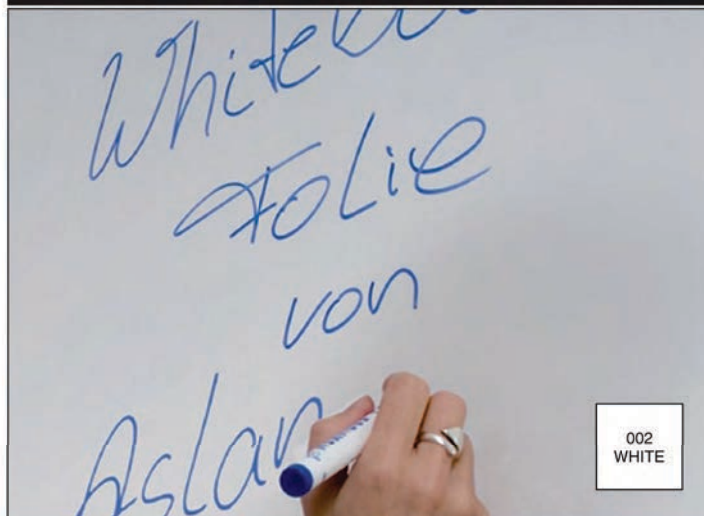
4308 SERIES - CHALKBOARD



4308 SERIES - LIQUID CHALK



4308 SERIES - WHITE BOARD



3404 Series - Ferrous Film

Use in combination with the other memo board products to create both magnetic and writable surfaces.

Film Technology	Film Thickness	Outdoor Durability	Adhesive Type/Color	Conformability
PE Based Ferro Film	16 mil.	N/A	Permanent/Clear	Flat Surfaces

FDC series 3404 is ASLAN FF 400. This product is a self-adhesive film containing a special iron mixture, which allows magnetic attachment. It may be rolled, is resistant to buckling and can be laminated with other films for a variety of surface options. Series 3404 features a strong permanent bond to most surfaces.

Lead Free, Phthalate Free, PVC Free.

4308 Series - Chalk Board

Available in two colors this product is ideal for creating trendy message and menu boards.

Film Technology	Film Thickness	Outdoor Durability	Adhesive Type/Color	Conformability
Calendered	6 mil.	2 years	Permanent*/Clear	Flat Surfaces

FDC series 4308 is ASLAN C60 & C61. This product is a calendered vinyl film with a special face designed for use as a chalkboard surface. It may be written on and wiped clean making it ideal to display often-changing information.

For best results this product should be wiped clean wet. Lead Free.

4308 Series - Liquid Chalk

Non-ghosting with a scratch resistant and super smooth face, ideal for displaying liquid chalks bright colors.

Film Technology	Film Thickness	Outdoor Durability	Adhesive Type/Color	Conformability
PET/PVC Compound	6 mil.	N/A	Permanent*/Clear	Flat Surfaces

FDC series 4308 is ASLAN BB900. This product is a calendered vinyl base film with a polyester face designed for use with liquid chalk. It may be repeatedly written on and wiped clean making it ideal to display often-changing information.

For best results this product should be wiped clean wet. Lead Free, Phthalate Free.

4308 Series - White Board

Non-ghosting with a scratch resistant and durable face, ideal for regular use.

Film Technology	Film Thickness	Outdoor Durability	Adhesive Type/Color	Conformability
PET/PVC Compound	6 mil.	N/A	Permanent*/Clear	Flat Surfaces

FDC series 4308 is ASLAN WB995. This product is a calendered vinyl base film with a polyester face designed for use as a dry erase surface. It may be repeatedly written on and wiped clean making it ideal to display often-changing information.

For best results this product should be wiped clean dry. Lead Free, Phthalate Free.

** These products feature a specially designed medium tack permanent adhesive which provides a strong bond to most surfaces. With careful removal techniques they may be removed cleanly.*

FDC Graphic Films, Inc. is a leading supplier of sign and digital media. For over 20 years we've sourced the best products from the most reliable manufacturers and partnered with industry leading brands to ensure the widest selection of products. We offer thousands of sizes and colors from a broad range products, in stock and ready to ship today.

ASLAN Specialty Films manufactures a range of self adhesive products for the sign and graphics market. They are best known for making products designed specifically for the unique demands of individual applications. Quality engineering and over 60 years experience demonstrates their ability to offer product solutions proven to work over time.





THE POWER OF **Fdc**

GRAPHIC FILMS, INC.

SIGN, DIGITAL & SPECIALTY MEDIA

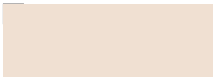
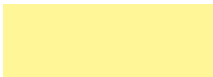
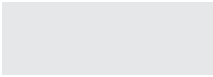
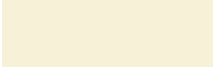
3M Product & Color Selector



*Authorized Master Distributor
Preferred Converter*

Summer 2013 Featuring

- Color Swatches
- Key Features
- Application Guide
- Build A Part Number

114 Transparent		130 Egg Shell		088 Violet		046 Kelly Green *	
010 White *		085 Vista Yellow		098 Dark Violet		186 Bright Green	
020 Matte White		015 Bright Yellow		048 Purple		056 Dark Green *	
090 Antique White		025 Sunflower		038 Royal Purple		066 Forest Green	
011 Pearl Grey		064 Apricot		027 Indigo *		276 Bottle Green	
031 Medium Grey		105 Harvest Gold		197 Light Navy		220 Light Silver Metallic	
120 Satin Aluminum *		024 Terra Cotta		177 Shadow Blue		201 Slate Metallic	
041 Dark Grey		054 Light Orange *		037 Sapphire Blue *		221 Gray Metallic	
012 Black *		014 Bright Orange *		017 Vivid Blue *		211 Charcoal Metallic	
022 Matte Black		263 Perfect Match Red		047 Intense Blue *		239 Chocolate Brown Metallic	
019 Deep Mahogany Brown *		013 Tomato Red *		057 Olympic Blue *		241 Gold Metallic	
029 Russet Brown *		063 Geranium		077 Peacock Blue *		229 Copper Metallic	
139 Saddle Brown		053 Cardinal Red *		187 Wedgewood Blue		203 Red Metallic	
131 Satin Gold		023 Deep Red *		086 Robin Egg Blue		228 Dark Burgundy Metallic	
059 Putty		058 Burgundy		176 Aqua		237 Silver Blue Metallic	
089 Sandstone		193 Mauve		307 Dark Aqua		227 Bright Blue Metallic	
039 Tan *		173 Salmon Pink		096 Teal		217 Dark Blue Metallic	
049 Beige *		103 Magenta		357 Bermuda Blue		216 Sage Green Metallic	
099 Fawn		273 Process Magenta		196 Apple Green			

Black = 7125/7725/1800 Series
 Green = 7125/7725 Series
 Blue = 1800 Series only
 * 1800 Series Gray Adhesive

IMAGING
Series 7725SE
 (7775SE Punched)

Series 50
 (55 Punched)

Series 50
 (55 Punched)

Series 3635
 Light Enhancement Film(3685 Punched)

404 Orange		011 Transparent		049 Burgundy		100 Matte White	
405 Yellow		010 White		034 Bright Orange		3635 (3685 Punched) Diffuser Films	
406 Green		100 Matte White		027 Sunflower		030 30% Light White	
407 Blue		094 Light Grey		024 Lemon Yellow		070 60% Light White	
413 Fuschia		097 Nimbus Grey		073 Grass Green		3635 (3685 Punched) Blockout Films	
414 Red-Orange		058 Silver		745 Bright Green		020 White/Black	
314 Dusted Crystal		012 Black		076 Medium Green		022 Black/White	
323 Frosted Rose		120 Matte Black		078 Dark Green		3635 (3685 Punched) Dual Color Films	
324 Frosted Crystal		092 Brown		079 Teal		210 White	
325 Frosted Violet NEW		054 Gold		082 Light Blue		3635 (3685 Punched) Day/Night Film	
326 Frosted Mint		914 Beige		084 Azure Blue			
327 Frosted Blue Mist		064 Pink		088 Sapphire Blue		222 Black	
331 Frosted Gold		044 Light Red		090 Deep Navy Blue		3635 (3685 Punched) Day/Night Film	
		483 Dark Red		066 Purple			
						091 Smoke Grey	

7125 - 3M 7125

Film Technology - Cast
 Outdoor Durability - 5 - 7 Years
 Adhesive/Color - Permanent/Clear
 Conformability - Flat, simple curves, rivets & corrugations

7725 - 3M 7725

Film Technology - Cast
 Outdoor Durability - 5 - 7 Years
 Adhesive/Color - Permanent/Clear
 Conformability - Flat, simple curves, rivets & corrugations

*Other colors available
 by special order

7725 - 3M 7725SE

Film Technology - Cast
 Outdoor Durability - 1 - 3 Years
 Adhesive/Color - Permanent/Clear or Grey
 Conformability - Flat surfaces

1800 - 3M 180C

Film Technology - Cast
 Outdoor Durability - 7 Years
 Adhesive/Color - Pressure-activated, slideable, repositionable, air release channels/Gray and Clear
 Conformability - Flat surfaces, rivets, corrugations, simple and moderate curves

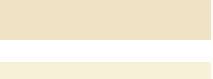
50 - 3M 50

Film Technology - Calendered
 Outdoor Durability - Up To 5 Years
 Adhesive/Color - Removable/Clear
 Conformability - Flat and simple curves

3635 - 3M 3635

Film Technology - Calendered
 Outdoor Durability - 5 Years
 Adhesive/Color - Permanent/Clear
 Conformability - Flat surfaces

For complete application durability and warranty information, see www.3Mgraphics.com
 Additional colors are available through special order, minimums may apply.

Series 3630 (3680 Punched)		Series 3630 (3680 Punched)		Series 3630 (3680 Punched)		Series 1120 (1170 Punched)	
020 White		074 Kumquat Orange		157 Sultan Blue		071 Yellow	
121 Silver		084 Tangerine		097 Bristol Blue		074 Orange	
051 Silver Grey		044 Orange		167 Bright Blue		072 Red	
071 Shadow Grey		043 Light Tomato Red		127 Intense Blue		075 Blue	
061 Slate Grey		143 Poppy Red		337 Process Blue		077 Green	
069 Duranodic		083 Regal Red		057 Olympic Blue		<i>* Other colors available by special order</i>	
022 Black		033 Red		147 Light European Blue			
059 Dark Brown		073 Dark Red		317 Evening Blue			
063 Rust Brown		053 Cardinal Red		246 Teal Green			
109 Light Rust Brown		049 Burgundy		236 Turquoise			
129 Bronze		128 Plum Purple		126 Dark Emerald Green			
131 Gold Metallic		133 Raspberry		076 Holly Green			
141 Gold Nugget		118 Intense Magenta		026 Green			
149 Light Beige		078 Vivid Rose		116 Bright Jade Green			
005 Ivory		108 Pink		146 Light Kelly Green			
015 Yellow		068 Rose Mauve		156 Vivid Green			
125 Golden Yellow		087 Royal Blue		136 Lime Green			
075 Marigold		036 Blue		106 Brilliant Green			
025 Sunflower		137 European Blue		115 Light Lemon Yellow			

1120 – 3M 1170

Film Technology - Cast
Outdoor Durability - 7 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat surfaces

3630 – 3M 3630

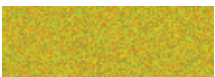
Film Technology - Cast
Outdoor Durability - 6 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat surfaces

Series 3200
(3250 Punched)

090
White



071
Yellow



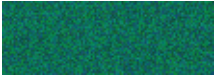
072
Red



075
Blue



077
Green



079
Brown
NEW



Series 3930
(3980 Punched)

030
White



031*
Yellow



034*
Orange



035*
Blue



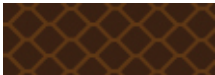
032*
Red



037*
Green



039*
Brown



Series 5100/5101
(5150/5151 Punched)

010
White



064
Gold



065
Rich Gold



071
Yellow



081
Lemon Yellow



014
Orange



072
Red



082
Ruby Red



074
Royal Purple



075
Blue



076
Light Blue



Series 5100/5101
(5150/5151 Punched)

077
Green



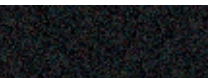
078
Light Green



079
Brown



085
Black



Series 9810
3M™ Diamond Grade™
Conspicuity

032/326
White/Red



071
Yellow

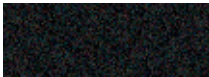


Series 5800/6800/6801
(5850/6850/6851 Punched)

010
White



085
Black



064
Gold



071
Yellow



081
Lemon Yellow



091†
School Bus
Yellow



014
Orange



072
Red



082
Ruby Red



075
Blue



076
Light Blue



077
Green



† 6800 Series only

*White is stock,
other colors available
by special order

3200 – 3M 3200

Film Technology - Retro-reflective
Outdoor Durability - 7 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat surfaces

5100 – 3M 5100

Film Technology - Retro-reflective
Outdoor Durability - 7 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat & simple curves,
rivets

5101 – 3M 5100R

Film Technology - Retro-reflective
Outdoor Durability - 7 Years
Adhesive/Color - Removable/White
Conformability - Flat & simple curves,
rivets

9810 – 3M 983

Film Technology - Prismatic Reflective
Outdoor Durability - 8 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat surfaces

3930 – 3M 3930

Film Technology - Prismatic
Reflective
Outdoor Durability - Up to 10 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat surfaces

5800 – 3M 580

Film Technology - Retro-reflective
Outdoor Durability - 7 Years
Adhesive/Color - Permanent/Clear
Conformability - Flat with rivets,
moderate compound
curves, corrugated
surfaces

6800 – 3M 680

Film Technology - Retro-reflective
Outdoor Durability - 9 Years
Adhesive/Color - Pressure-activated,
slideable/White
Conformability - Flat with rivets,
moderate compound
curves, corrugated
surfaces

6801 – 3M 680CR

Film Technology - Retro-reflective
Outdoor Durability - 9 Years
Adhesive/Color - Pressure-activated,
slideable, with air
release channels/White
Conformability - Flat with rivets, moderate
compound curves,
corrugated surfaces

Product Title			Characteristics			Processing					Applications						
Brand	FDC Series	Description	Outdoor Durability (Years)	Film Thickness (mil.)	Adhesive Permanent/Removable	Computer Cutting	Thermal Transfer Print	Eco Solvent Print	UV Curable Inkjet Print	Screen Print	Awnings	Backlit Sign	Banner	Unit/ Frontlit Sign	Vehicle Marking	Vehicle Wrap	Window
3M	7125 Series	7125 Scotchcal™ ElectroCut™ Graphic Film	5 - 7*	2.0	P	•	•			•				•	•		•
3M	7725 Series	7725 Scotchcal™ ElectroCut™ Graphic Film	5 - 7*	2.0	P	•	•			•				•	•		•
3M	7725SE Series	7725SE Scotchcal™ ElectroCut™ Graphic Film	1 - 3*	2.0 - 3.25	P	•				•				•			•
3M	1800 Series	180C Controltac™ Graphic Film with Comply™ Adhesive	7*	2.0	R	•				•				•	•	•	
3M	50 Series	50 Scotchcal™ Graphic Film	up to 5*	3.0	R	•	•						•	•	•		•
3M	3635 Series	3635 Light Management Films - Blockout Films	5*	5.5	P	•				•		•					
3M	3635 Series	3635 Light Management Films - Day/Night Films	5*	4.0	P	•						•					
3M	3635 Series	3635 Light Management Films - Diffuser Films	5*	4.0	P	•						•					
3M	3635 Series	3635 Light Management Films - Dual Color Films	5*	5.5	P	•				•		•					
3M	3635 Series	3635 Light Enhancement Film	5*	5.5	P							•					
3M	3630 Series	3630 Scotchcal™ Translucent Graphic Film	6*	2.0	P	•				•	•	•					
3M	1120 Series	1170 ElectroCut™ Film	7*	2.0	P	•											
3M	3200 Series	3200 Engineer Grade Reflective Sheeting	7*	7.0	P	•				•				•			
3M	3930 Series	3930 High Intensity Prismatic Reflective Sheeting	up to 10*	17.0	P					•				•			
3M	5100 Series	5100 Scotchlite™ Reflective Graphic Film	7*	7.0	P	•	•			•				•	•		
3M	5101 Series	5100R Scotchlite™ Reflective Graphic Film	7*	6.0	R	•	•			•				•	•		
3M	5800 Series	580 Scotchlite™ Reflective Graphic Film	7*	7.0	P	•				•				•	•		
3M	6800 Series	680 Scotchlite™ Reflective Graphic Film	9*	7.0	P	•				•				•	•		
3M	6801 Series	680CR Scotchlite™ Removable Reflective Graphic Film w/ Comply™ Adhesive	9*	7.0	R	•				•				•	•		
3M	9810 Series	983 Diamond Grade™ Conspicuity Markings	8*	14.0-16.0	P										•		

Opaque

Light Management

Translucent

Transparent

Reflective

* See 3M Technical Bulletins for applications, durabilities and warranties. www.3Mgraphics.com P = Permanent R = Removable

0000 - 0000 - 000

The first four (4) digits in our Part Number identify the Series of product and determine the converting process.

Increasing the Non-Perforated product number by 50 identifies all Perforated products. The only exception to this numbering is the 2100 Series that represents Non-Perforated and 2200 that represents the Perforated product in this Series.

The second four (4) digits identify the material converted size. The first two digits indicate the Width and the last two indicate the Length (see below).

The final three (3) digits identify the Color, and all colors contain three digits.

7125 - 1515 - 013

└───┴───┘	└──┴──┘ └──┴──┘	└───┴───┘
Non-perforated 2.0 mil. Cast	Width = 15" Length = 150' (50 yds.) (The 0 in 150 is hidden)	Color 013 (Tomato Red)

7175 - 3003 - 012

└───┴───┘	└──┴──┘ └──┴──┘	└───┴───┘
Perforated 2.0 mil. Cast	Width = 30" Length = 30' (10 yds.) (The 0 in 30 is hidden)	Color 012 (Black)

Notes

Add 1" to the width number to designate IBM perforated. (30" only - i.e. 3103 or 3115)



Built For Service



Product Selection

Thousands of sizes and colors for a broad range of 3M vinyl, reflective and tape products are available for shipment today. FDC stocks more than just the most popular colors so you can get what you want without waiting. In addition to a large range of stock items, as a 3M Authorized Master Distributor and Preferred Converter, we have the complete 3M Commercial Graphics Division product line available by special order from the factory. An extensive offering of FDC brand sign films and digital products is also available.

Great Location

FDC ships from South Bend, Indiana. Our central location provides for fast delivery nationwide, for both LTL and package delivery. We reach over twenty states using FedEx ground in two days or less. You get your products faster when you match a great location with FDC's film converting facility that is designed for rapid order turnaround and same day shipment.

Known For Reliability

FDC's reputation for quick reliable shipment is built on over 20 years of experience. Our fill rates regularly exceed 95%. High fill rates mean that your order gets shipped when we promise that it will ship, even for orders placed by 5 PM requested to ship the same day. In the end, reliability is what it is all about. We have the products you need when you need them, we ship them as promised, and they work like they're supposed to.

FDC is Service, Selection and Reliability.

3M, Controltac, Comply, ElectroCut, Diamond Grade, Scotchcal and Scotchlite are trademarks of 3M.



Summer 2013 • CC0137125-001

Price: \$7.00

Lot •

4300 Series Color Selector

Matte Removable Vinyl Film

002 White	008 Brown	009 Orange	076 Magenta	011 Dark Blue
003 Black	068 Beige	014 Tomato Red	074 Royal Purple	071 Teal
028 Dove Grey	067 Primrose Yellow	125 Wild Cardinal Red	214 Medium Blue	247 Vibrant Green
007 Silver	006 Yellow	053 Cardinal Red	005 Blue	126 Kelly Green
004 Gold	025 Sunflower	012 Burgundy	017 Sapphire Blue	024 Dark Green

Ordering Information 4300 (4350 Punched)					
Roll Size	8"	12"	15"	24"	48"
164 Ft	0816	1216	1516	2416	4816
82 Ft	0809	1209	1509	2409	4809
32 Ft	0804	1204	1504	2404	4804
2 Ft	N/A	8005*	N/A	N/A	N/A

*Available by the box (5 sheets per box).

Key Features
Film Technology - Calendered
Outdoor Durability - 3 Years
Adhesive/Color - Removable/Clear
Conformability - Flat surfaces and simple curves

For the Display, Décor and Craft Market

About 4300 Series

4300 Series computer cuttable film is manufactured for FDC by ASLAN, a high-quality, German based self adhesive films manufacturer. In North America, ASLAN products are available exclusively from FDC Graphic Films. 4300 Series is designed specifically to meet the unique requirements of the display, décor and craft market.

We offer 25 of the most popular colors available in many sizes not provided by other manufacturers, making it easy to match 4300 Series with almost any type of cutter. FDC has the right color and size to match your equipment – you have the imagination!

How It Works

Indoor or outdoor, temporary or permanent, 4300 series is the most versatile product for your display, décor or craft project. With a three-year outdoor durability and acid free removable adhesive, 4300 provides you with the confidence that your project will last. Designed to remove cleanly from many surfaces, it is the perfect marking film for all types of temporary displays and exhibits. A low glare matte finish makes this product ideal for use in a variety of lighting conditions.

A Proven Source

ASLAN Specialty Films manufactures a range of self adhesive products for the sign and graphics market. They are best known for making products designed specifically for the unique demands of individual applications. Quality engineering and over 50 years experience demonstrates their ability to offer product solutions proven to work over time. As a matter of fact, we are so confident in ASLAN's performance and reliability that we put their name on the liner.

Speed and Availability

FDC is a leading supplier of sign and digital media. For over 20 years, we've sourced the best products from the most reliable manufacturers while providing industry-leading service. Our Midwest warehouse is strategically located to reach over 22 states in two days or less. With fill rates in excess of 95%, we complement the service provided by our local distributors. At the request of a distributor, we can ship to a local warehouse or directly to the end user. We accept orders until 5:00 PM Eastern time for same day shipment. We're convenient! FDC 4300 Series - the right color and size when you need it!



The surface must be fully prepped and correctly prepared prior to application to avoid material failures and achieve the maximum expected durability. Preparation includes:

- Cleaning the vehicle,
- Drying and spot cleaning the surface,
- Removing parts such as front and rear lights where the graphic will be tuck behind,
- Acclimate the vehicle's temperature to the recommended temperature application range.

Fully wash the vehicle using no wax or other agents that could form a barrier between the surface and the adhesive. Remove as much dirt as possible, paying special attention to areas of the car where material will be pulled around and secured to (including but not limited to): underneath the bumper, inside the wheel wells and around the sides of doors, hatches, lights and lids. When cleaning the surface use lint free towels to avoid leaving contaminants behind.

Wipe the entire surface with a cleaner designed to remove wax. Use only commercially available and application specific products. Follow all manufacturers recommendations and test prior to use. Hand wash or spot wash problem areas to remove any remaining dirt.

Remove any parts or accessories necessary for you to complete your application. Ensure that all water has been fully evacuated from seams and behind seals and body molding.

Place the vehicle inside in a clean and stable temperature controlled environment. Allow 24 hours for the vehicle to fully dry and reach application temperature. Ideas application temperature is 65°F to 70°F.

Do not spray or pour liquids directly onto the surface as they may become trapped behind seals and body moldings and evacuate after application causing a failure. Wipe the entire surface with Isopropyl Alcohol (90% or higher) using the wet-towel / dry-towel method. A wet towel should be passed over the surface followed by a dry towel as the alcohol will break debris free from the surface, but not remove it when it evaporates.

Seams and areas where body panels meet should be cleaned by covering a squeegee with a wet towel and running and pressing it into these areas. Follow with a squeegee covered with a dry towel. To prevent surface contamination dispose of towels as soon as they show dirt. If application to all areas of the vehicle will be delayed or done at different times, fully prepping only the area to be applied now is recommended. The remaining area must be prepped before later application. This should prevent a prepped area from being contaminated while waiting for application.

**Reference: FDC Substrate Cleaning and Preparation Instructional Bulletin 1.0*

Application:

7123 is intended for flat surfaces, complex curves and simple rivets only. It could tent when used over rivets or corrugations and will require careful application when used over complex curves, recessed and concave surfaces.

7233 is intended for flat surfaces and simple curves only. It will tent when used over rivets or corrugations and should not be used over complex curves, recessed and concave areas. Test all surfaces prior to use to determine the suitability of this product given the particular application.

designed for flat surfaces, complex curves and simple rivets only. It could tent when used over rivets or corrugations and will require careful application when used over complex curves, recessed and concave surfaces.

Once cleaned and dried, preparation for the application begins. Application steps include:

- Check again for wet spots and dry if any found,
- Ensure that vehicle and graphics are temperature acclimated & work area is clean,
- Layout application surface & dry fit graphics,
- Apply graphic & seal edges when necessary.

Once the re-check for wet Application should be done inside in a clean and stable temperature controlled environment. The minimum application temperature for this film is 50°F, but the ideal application temperature will be higher (between 65°F to 70°F). At the lower end of the application temperature range materials will become less flexible and adhesives will exhibit a lower tack level. As temperatures increase beyond this range, the adhesive softens causing positionability of the adhesive to decrease making it harder to install the graphic.

Note: This temperature range applies for the graphics, vehicle surface and air temperature. Temperature must remain constant throughout the application.

With any remaining wet areas dried, recheck ensure that the work area is free of surface contamination and that the floor and surrounding work areas are clean. Avoid laying or storing graphics on any surface that has not been cleaned. Applying this media outside or in conditions different from those listed above is not recommended and may lead to application problems and material failures.

Graphics should be dry-fitted before application to ensue correct fit and overlap. If paneling graphics vertically, place the first panel at the back of the vehicle then move forward so that all of the overlaps face to the rear. If paneling graphics horizontally, place the first panel at the bottom then move upward so that all of the overlaps face down. The ideal overlap should be between ½” and 1”. This product should only be applied dry and is not recommended for marine applications.

Start your first hand stroke with in the largest flat area available for that panel to give yourself a secure and smooth starting point. Work from that point up or that point down, using firm pressure and overlapping strokes. Never work from the top all the way down or from the bottom all the way up, this will increase the chance of stretching the media and skewing the graphic.

Heat may be used to stretch this material and to remove wrinkles by relaxing the material. Use the lowest amount of heat necessary and avoid overstretching the film. Be careful when using heat on plastic components as excessive heat may cause damage. Material should not be bridged over recessed areas. The film should be worked in from one side down through the recess and back up the other side. Primers and adhesion promoters may be used for complex curves, recessed and concave areas. Use only commercially available and application specific products. Follow all manufacturers recommendations and test prior to use.

***Reference: FDC Application of Vinyl and Adhesive Backed Media Instructional Bulletin 2.0, corresponding Product Data Bulletin**

Finishing:

Cut and trim material along all edges and ensure that the material is firmly attached. Cuts should be made in all seams where body panels touch and around all body moldings. Make cuts so that open

edges wrapped around surfaces and do not face forward. Heat all edges, curves recesses and areas where the material was stretched to above 200°F. Allow those areas to cool and re-squeegee. This helps ensure film conformability and adhesive bonding. Application over rivets often results in some amount of tenting or lifting around the rivet head and does not constitute a failure or breach of warranty. FDC recommends that overlaminated graphics be cut around rivet heads, especially any rivet head over 3/8". Properly finish and seal any cut edges. Full adhesive bond will be achieved 24 hours after application. If possible, keep the vehicle inside during this time and re-inspect the application prior to release.

***Reference: FDC Application of Vinyl and Adhesive Backed Media Instructional Bulletin 2.0**

Maintenance:

For general cleaning, rinse the surface well with warm water to remove any dirt. Wash by hand with a mild soap and warm water. Use a soft cloth or sponge to loosen any remaining dirt. Do not scrub with squeegees or brushes. Rinse the surface again and allow to air dry or carefully wipe with a clean, soft lint free cloth to prevent water spotting. When using a sponge or cloth make sure it doesn't contain contaminants from prior use. Power washing, high-pressure sprays and automatic car washes are not recommended and should be avoided. FDC cannot take responsibility for damage caused by their use. If these are necessary, extreme care should be taken in order to avoid damage to the graphic. Never wash or brush the graphic from the edge towards the center, as this will cause lifting or tearing. Never use a wand angle under 60 degrees to the surface. Low angle water streams increase the chance of lifting. Use a wide spray pattern and low-pressure power wash settings.

***Reference: FDC Application of Vinyl and Adhesive Backed Media Instructional Bulletin 2.0**

Durability:

The outdoor durability listed for this product is the expected durability for unprinted media in a vertical application and under ideal conditions. When used in a vehicle wrap this product will be subjected to damage causing it to show wear and degrade over time. Horizontal applications will be subjected to greater UV exposure and will age faster than vertical applications. Durability for this product will be subject to its use, maintenance and environment and may be reduced in areas of high UV exposure including: desert southwest (southern – CA, NV, UT / all of AZ, NM & TX), south Florida and high altitude mountain states.

***Reference: FDC Limited Warranty: Vehicle Wrap Applications, corresponding Product Data Bulletin**

Removal:

Lift a corner of the graphic and pull away from the surface using a smooth and even motion. Minimize the degree of the pull angle to reduce the potential for residual adhesive remaining on the surface. Typically an angle of less than 45° is best. If required heat or chemicals may be used to assist with removal. The use of primers and adhesion promoters may greatly increase the amount of residual adhesive. Remove any residual adhesive from the surface with an adhesive remover. Use only commercially available and application specific products. Follow all manufacturers recommendations and test prior to use.

***Reference: FDC Limited Warranty: Vehicle Wrap Applications, corresponding Product Data Bulletin**

Note: Special instructions are provided to assist the end user in the application of this product and are given without a guarantee and do not constitute a warranty. It is the responsibility of the end user to test and qualify any procedure prior to use to determine its suitability.

MB

For Series:

7123 – Print Media: Cast Wrap, Air Advantage™ Adhesive

7233 – Print Media: Intermediate Calendered, Air Advantage™ Adhesive

1025 – Air Advantage™ Color Film

Production, Inspection, Preparation, Application, Finishing, Maintenance, Durability & Removal

Due to the varying characteristics of facestocks with Air Advantage™ adhesive some instructions included in this document may not pertain to all the series listed above. A complete discussion and explanation of wrap procedures is not practical in this document. Wrap training, practice and experience are strongly recommended prior to use of Air Advantage adhesive products.

Production:

A print test is recommended prior to production to determine the suitability of this product given a particular printer, RIP, ink type and set. To limit print quality issues, print all graphics at the same time (print quality can vary based on environmental conditions) and use the same roll of material (material color can vary by roll). Allow 24 hours after printing for the ink to fully cure and outgas prior to laminating, cutting or application. Lamination is recommended to provide protection from UV exposure, chemicals and abrasion. 7123 Series is warranted for use with FDC 7006 and 7000 laminate and 7233 series is recommended for use with FDC 7000 laminate.

**Reference: FDC Digital Printing Instructional Bulletin 4.0, FDC Limited Warranty: Vehicle Wrap Applications, corresponding Product Data Bulletin*

Inspection:

Inspect the surface to which the media is to be applied. Determine the suitability of the surface to accept graphics prior to production and determine the suitability of specific product(s) for the application. For vehicle applications an original factory paint job in good condition is ideal. This is not always the situation, so care should be taken to inspect for surface problems and surface integrity. Problem areas could include:

- Improperly prepared or under cured paint and rusted surfaces,
- Damaged and repaired areas,
- Slick surfaces with coating or contaminants that could resist a complete adhesive bond,
- Paint that is scratched, chipped, faded, peeling or damaged.

Any of the above defects may cause material failures and damage during application and/or removal. It is the sole responsibility of the end user to identify, record and maintain information regarding any concerns or problems with the surface. If the quality of a surface is in question, a tape test can be preformed to determine if the surface qualifies for application.