ARLON

SLX®+

Experience the performance evolution with SLX®+. Superior repositionability, conforming effortlessly around rivets, complex curves, and deep channels, we've packed the performance benefits of FLITE Technology® and more into this product. With a moderate tack adhesive and quick-flow characteristics, SLX®+ ensures the easiest installation in both hot and cold temperatures. From production to shipping and handling, you can achieve fast and accurate weeding of letters up to 2" (5cm). With the ability to adhere to the more challenging vehicle surfaces, like stainless steel, sign shops can easily adapt and install on multiple surfaces. SLX®+ is the new all-season, print-to-cut, multi-surface vehicle wrap film.

Unique Features:

- Superior Repositionability
- Fast & Accurate Weeding
- All-Season Wrap Film
- Fast Wraps with One Installer
- Vibrant & Reliable Print Quality

Applications

- Vehicle Graphics (Full, Partial)
- Vehicle Decals
- Fleet Graphics
- Stainless Steel

Performance & Physical Data

Finish:	Gloss
Durability (Unprinted):	10 Years
Roll Widths:	30" (0,76m) 48" (1,22m) 54" (1,37m) 60" (1,52m)
Roll Length:	50 Yards (45,72m)
Adhesive:	Clean Removing, Repositionable (Light Gray)
Release Liner:	Lay-Flat Polycoated with Low Profile FLITE Technology
Ink Compatibility:	Eco-Solvent, Solvent, UV, Latex
Compatible Overlaminates:	Series 3270 Series 3210 Series 3220 Series 3310

FLITE® TECHNOLOGY

TOTAL WARRANTY SYSTEM

Certified for HP Latex Inks

USA
a 200 Boysenberry Lane, Placentia, CA 92870
p 800 232 7161 / +1 714 985 6300
f +1 714 985 6305

EUROPE
a Dr. Lelykade 22B, 2583CM Den Haag, The Netherlands
p +31 70 354 4311
f +31 70 355 7721

CHINA
a No. 1989 Xinchang Road, Weifang, Shandong, 262400
p +86 0536 6226568

arlon.com

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PRODUCT INFORMATION BULLETIN

SLX®+

Premium Cast Digital Film with FLITE Technology®

SLX®+ is a 2-mil (50 micron) premium gloss white cast film with FLITE Technology®. Designed for full and partial vehicle wraps and fleet applications, SLX+ features an optimal initial tack to ensure high repositionability with quick anchoring and builds a strong bond while removing clean at the end of the wrap life. The optimized performance of SLX+ improves all-weather application performance and cutting & weeding, while maintaining a high conformability in complex areas such as rivets, curves, and deep channels. SLX+ has a tinted, permanent pressure-sensitive adhesive that provides excellent opacity and a low profile air egress liner that aids in easy installation and provides a smooth finish. SLX+ is rated for outdoor durability up to 10 years (unprinted). Printed durability is dependent on the ink system used.

APPLICATIONS & FEATURES

- Optimized product construction designed for vehicle and applications, including stainless steel
- FLITE Technology® allows superior repositionability & snap-up, with strong anchoring to ease large panel installation
- Excellent conformability for installing complex curves, deep channels, and rivets
- Designed for cutting and weeding letters 2" (5 cm) or greater
- Vibrant and reliable print quality on Eco-Solvent, Solvent, UV and Latex print systems
- Compatible with Series 3210, Series 3270, Series 3220, Series 3310 and Series 3200 Overlaminates

PERFORMANCE & PHYSICAL DATA

PROPERTY	TEST METHODS	TYPICAL VALUE	
SURFACE FINISH	Gloss Meter 60° Reflection	70 to 90 Gloss Units	
THICKNESS	Micrometer, Federal Bench Type	2-mil (50 micron)	
TENSILE STRENGTH	Tensile Tester with 2-in (51 mm) jaw separation; crosshead speed of 12 in/min. (5.1 mm/s), web direction	≥ 4.5 lb/in	≥ 0.8 kg/cm
ELONGATION	Instron Tensile Tester as above	Average 190%	
SHELF LIFE (IN BOX)	Ideal Storage Temperature 70°F (21°C) and 50% relative humidity	2 years from factory shipment	
APPLICATION TEMPERATURE RANGE	On clean, dry substrate	50°F to 90°F	10°C to 33°C
SERVICE TEMPERATURE RANGE	On clean, dry substrate	-40°F to 176°F	-40°C to 80°C
DIMENSIONAL STABILITY	158°F (70°C), 48 hours	0.010 in	0.24 mm
PEEL ADHESION	PSTC-1, 15 min, 70°F (21°C)	2.8 lb/in	490 N/m
	PSTC-1, 24 hours, 70°F (21°C)	3.6 lb/in	630 N/m
	PSTC-1, 1 week, 70°F (21°C)	4.2 lb/in	736 N/m
LINER RELEASE	TLMI Release at 90˚, 300 in/min (760 cm/min)	50 g/2 in	9.84 g/cm

NOTE: Recommended post-heat surface temperature of vinyl installed: 203°F to 221°F (95°C to 105°C). The recommended post-heat temperature applies to the film and overlaminate wrap. Standard Terms & Conditions Apply.

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OPTIMUM PERFORMANCE

Actual weathering durability depends on surface preparation, surface maintenance and exposure conditions. Successful weather resistance is characterized by the retention of legibility. SLX®+ will resist weathering best when applied to vertical or upper outboard angles rather than horizontal surfaces due to the nature of less UV exposure and moisture, as well as other contaminants. Use heat and/or chemicals when removing graphics from vehicle (Fleet & Vehicle Wrap Removal Tip #44 by visiting www.arlon.com).

STAINLESS STEEL

Stainless steel application with SLX+ is for smooth stainless steel surfaces. Clean removability is not guaranteed for installation on stainless steel surfaces. Arlon does not warranty discoloration or staining that may be visible after removal of SLX+ on stainless steel.

STORAGE AND MAINTENANCE

Storing vinyl graphics in covered areas will help prolong the life of the vinyl by limiting its exposure to damaging elements such as sunlight and rain. Protecting a wrapped car in the garage can keep it sheltered from all types of weather and harmful pollution, both of which could wear out the horizontal surfaces of the car and cause damage to the paint underneath. Vinyl that starts to brown or show discoloration has been negatively affected by acidic pollutants and if not immediately removed could stain the paint. Taking extra steps to keep the vinyl covered when not in use will help extend the life of the vinyl and keep the car looking as good as it did when it was first wrapped.

TERMS & CONDITIONS

The following is made in lieu of all warranties expressed or implied:

All orders and purchases made in connection with this document are governed and limited by Arlon's Standard Terms and Conditions, which are incorporated in full by this reference and are available at http://www.arlon.com/terms-and-conditions or in hardcopy by request.

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USA
a 200 Boysenberry Lane, Placentia, CA 92870
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INSTALLATION GUIDE

SLX®+ With FLITE Technology

Technical Services
August 2020
North America, Latin America,
Australia, New Zealand

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INSTALLATION GUIDE

Reading and following this Installation Guide will ensure you as the applicator are equipped with best practices when applying SLX+.

APPLICATION TOOLS

- Heat Source(s):
  - Heat gun
  - IR heater
  - Propane torch
- Squeegees
- Lint-free application gloves
- BodyGuard Knife
- Knifeless Tape
- 9mm snap-off blades
- IR Thermometer
- Magnets
- Masking Tape

PREPARATION

BEST PRACTICES	BENEFITS
1. ***Vehicle should to be delivered "street clean"*** First, the vehicle needs a basic wash before shop drop-off and then, the shop will clean the vehicle in detail.	A "street clean" vehicle helps maintain a clean zone in the shop and prepares it for a more detailed cleaning prior to wrapping.
2. ***Install in a clean and controlled environment*** Surface Temperature: 60°F - 90°F (15°C – 32°C) Relative Humidity: <85%	Climate control creates optimal conditions for an efficient application. Regulating humidity will prevents moisture build-up on the surface that may hinder adhesion.
3. ***Tape off or remove hardware*** Side mirrors, door handles, auxiliary turn signal lights, third brake lamp, vent trims, badge and emblems, roof molding and railings, antenna, etc.	Removing hardware allows for a thorough cleaning of the edges and gaps. Eliminating or taping off protruding components increases efficiency and minimizes the risk of overstretching.
4. ***Always check if all panels and artwork are included in the kit*** Dry fit all the panels to ensure proper graphic placement and alignment.	Double checking the kit's contents guarantees a smooth application process and on-time delivery.

PRECAUTIONS	BENEFITS
Arlon does not warrant applications on aftermarket paint or damaged paint.	Aftermarket or damaged paint will hinder adhesion and may peel off during installation or upon removal.
Avoid wrapping a freshly painted car. Only apply graphics after paint is fully cure according to the paint manufacturer's specifications.	If the surface is wrapped before the paint fully cures, bubbles will form as the paint outgasses and may also lead to adhesion failure.

SLX®+ With FLITE Technology
INSTALLATION GUIDE

INSTALLATION

BEST PRACTICES	BENEFITS
1. Apply with a buffered squeegee Use the unbuffered side to work out sharp wrinkles. Different squeegee shapes and hardness also depends on the installer's preferences.	A buffer prevents squeegee scratches on the film. See *WrapItRight® Video: Basic Squeegee Skills*
2. Squeegee with firm pressure and overlap strokes Harder squeegees allow for a more direct transfer of force. Overlap strokes by about 50% of the squeegee's width.	Good squeegee technique ensures maximum surface coverage and adhesive contact.
3. Place the seams properly with at least 1/2" (12mm) overlap • For vertical overlaps, start with the rear panel • For horizontal overlaps, start with the bottom panel	The seam edges will be less likely fail or get damaged because they will be facing away from the elements.
4. Use heat to stretch the film Heat Range: 100°F - 120°F (38-49°C) Maximum Stretch: 25% *NOTE: Maximum stretch may be lower depending on the ink and saturation. The ability to hold the stretch also depends whether the surface is concave or convex.*	Heat softens the film and allows it to stretch and conform to curves and channels. The upper temperature limit prevents the film from being too soft which may lead to image distortion, color shift, and edge curl.
5. Distribute the stress on curves and channels Heat a larger area and gently stretch in multiple directions.	Spreading the stretch over a larger area lowers the stress on small areas, thus reducing the risk of popping or edge curling. See *TIP 38: Installation Technique for Channels*
6. Use the Pre-stretch and Shrink Method in compound curves Bumpers, side view mirrors, fender arches, etc.	This method takes full advantage of the "memory effect" and prevents the edges from curling or bottle-capping. See *WrapItRight® video: The Pre-Stretch and Shrink Method*
7. Pre-panel or use Channel Extensions Use the second panel or a scrap vinyl to manage the distortion on stretched edges.	Pre-paneling allows the overlapping edges to stretch in unison while channel extensions will smooths out any edge distortion upon stretching. See *WrapItRight® video: Eliminating Edge Distortion with a Channel Extension*
8. Clean the edges of the applied panel with diluted alcohol A 70% dilution of alcohol in water is recommended.	A quick wipe on the edges will remove some skin oils or other contaminants and maximize the adhesion at the overlap.
9. Use the Expanded Pocket Technique where inlays are not applicable. The Expanded Pocket allows for continuity in the printed graphic, but inlays can accomplish the same if strategically placed.	The Expanded Pocket shifts most of the stress away from the deepest parts of stretched vinyl. See *WrapItRight® video: Managing Heat and Tension*

PRECAUTIONS	BENEFITS
When considering the amount of stretch necessary, avoid installing both concave and convex curve profiles with the same approach.	Convex curves such as bumpers and mirrors will require Pre-stretch and Shrink Method. Concave curves such as channels require shifting tension to the flat areas or use the *Deep Channel Hack*

SLX®+ With FLITE Technology
INSTALLATION GUIDE

FINISHING

BEST PRACTICES	BENEFITS
1. ***Avoid stretching on areas that will be cut*** Edges, wheel wells, seams, overlaps & channels.	Use a technique that will minimize stretching the film where it will be cut to avoid premature failure such as edge curling, lifting, or bottle-capping.
2. ***Post-heat before trimming*** Always follow the specified temperatures: • Add 25°F (+15°C) to the ambient temperature when heating flat surfaces • 200°F and 220°F (95°C and 105°C) for edges, seams, and other stretched areas Post-heating is a time consuming yet vital step of the wrap process. Work in small sections and reapply pressure.	Post-heating softens the adhesive to increase flow; expose trapped air and unapplied areas; anticipate the hottest temperature in can be exposed; and relieve some stresses in the film.
3. ***Be proficient in using Knifeless Tape*** If cutting by hand is absolutely necessary, frequently snap a new blade and apply *FineLine Tape* to provide a safe cutting surface.	Knifeless or FineLine Tape provides a preview of cut lines and prevent cutting the vehicle's paint. Snap a new blade frequently for high quality edge cuts and prevent the need for double-cutting.
4. ***Wait for 15 minutes before trimming*** Let the film cool and stabilize before trimming and leave 1/8" (3 mm) of overhang to properly tuck the film.	Allowing the film to cool and stabilize before cutting ensures better adhesion on the edges.
5. ***Use the proper technique on corners*** Techniques such as *Painted-edge Corner, Cut & Overlap,* and *Cold Pre-stretch* can be used on corners.	Corners may be small, but the impact is enormous in terms of quality.
6. ***Overnight dwell time*** If possible, let the vehicle dwell overnight in the shop prior to delivery to customer.	Letting the vehicle dwell in the shop allows the adhesive to build before being exposed to the elements. In case of a missed area or edges were improperly installed, it can be easily fixed without being contaminated by outside elements.

PRECAUTIONS	BENEFITS
Avoid trimming while the film is warm.	Warm film is too soft to make a clean cut and yield jagged cuts.
When post heating with high temperatures, do not just heat the film without reapplying pressure.	Reapplying pressure ensures maximum adhesive contact by increasing the adhesive flow and closing air egress channels.
Avoid cutting directly on paint.	Deep cuts on paint are vulnerable to peel off paint when the graphic is removed.
Avoid overstretching on the corners.	Corners converge at a small area and does not have enough adhesive to hold a high stress area in place.

SLX®+ With FLITE Technology
INSTALLATION GUIDE

MAINTENANCE

BEST PRACTICES	BENEFITS
1. ***Regularly wash a wrapped vehicle*** Hand washing is preferred but if using an automated carwash, use the touchless option.	Wash a wrapped vehicle regularly to ensure its longevity. Touchless car wash minimizes the risk of scratches, chips, swirls, and edge lift compared to the brush-type cleaning method.
2. ***Use precautions for power washing*** The nozzle pressure should not exceed 1,300 PSI (90 Bar). Keep the tip at least 5' away from the vehicle and the spray angle of no shallower than 60° from perpendicular.	See *TIP 46: Fleet Graphics Post-Care & Cleaning Instructions*

PRECAUTIONS	BENEFITS
Allow one week to pass from the installation date before washing the vehicle.	Waiting a week before washing prevent the film from being disturbed as it approaches its maximum adhesion.
Always follow the manufacturer's recommended dilution ratio of detergent and water.	An overly concentrated solution can damage both the adhesive and the vinyl.

REMOVAL

BEST PRACTICES	BENEFITS
1. ***Use heat when removing the wrap*** Heat the film to 90°F-150°F (30°C-65°C) before peeling it off the vehicle.	Removal becomes easier because heat softens the film to temporarily lowers the adhesive's shear holding force and at the same time, reduce the risk of tearing.
2. ***Peel the film with safety in mind*** Remove the film at a slow and steady pace at an angle no greater than 90°.	There is personal safety risk and potential damage to the vehicle when peeling off a wrap. If the film suddenly tears, the installer can fall off a platform and/or damage the vehicle. A slow and steady pace is required as a sudden change in peeling force may cause layer separation, delamination and/or film tearing. See *TIP 44: Fleet & Vehicle Wrap Removal*