



► CalWrap Film

High Performance Digital Film with FLITE Technology™

CalWrap is a 3.2-mil (80 micron) white gloss high performance calendered film with FLITE Technology™. CalWrap provides a fast and easy installation for vehicle wraps and graphics. FLITE Technology is a lite contact system allowing graphics to float over a substrate until firm pressure is applied. The tinted air egress liner allows for a bubble-free installation with enough opacity to cover existing graphics or dark substrates, creating a picture perfect finish. CalWrap is rated for outdoor durability up to 5 years (unprinted). Printed durability is dependent on the ink system used.

APPLICATIONS & FEATURES

- Great for medium-term vehicle wraps with simple to moderate curves
- Lite initial contact that forms a strong bond & allows clean removability
- Printable on Eco-Solvent, Solvent, Latex, and UV printers
- Recommended overlaminates: Series 3170, Series 3220, Series 3210, Series 3410* or Series 3420*

* Only available in Europe and the Middle East.

* Use on flat and simple curves only.

PERFORMANCE & PHYSICAL DATA

PROPERTY	TEST METHODS	TYPICAL VALUE	
SURFACE FINISH	Gloss Meter 60° Reflection	80 to 90 Gloss Units	
THICKNESS	Micrometer, Federal Bench Type	3.2-mil (80 micron)	
TENSILE STRENGTH	Tensile Tester 2-in (51 mm) jaw separation; crosshead speed of 12 in/min. (5.1 mm/s); web direction	≥ 14 lb/in	≥ 2.5 kg/cm
ELONGATION	Instron Tensile Tester as above	Average 200%	
SHELF LIFE (IN BOX)	Ideal Storage Temperature 70°F (21°C) and 50% relative humidity	1 year from factory shipment	
APPLICATION TEMPERATURE RANGE	On clean, dry substrate	60°F to 100°F	15°C to 38°C
SERVICE TEMPERATURE RANGE	On clean, dry substrate	-20°F to 150°F	-29°C to 65°C
DIMENSIONAL STABILITY	158°F (70°C), 48 hour	10-mil	0.24 mm
PEEL ADHESION	PSTC-1, 15 min, 70°F (21°C)	≥ 2.0 lb/in	≥ 0.36 kg/cm
	PSTC-1, 24 hours, 70°F (21°C)	≥ 2.5 lb/in	≥ 0.45 kg/cm
	PSTC-1, 1 week, 70°F (21°C)	≥ 3.0 lb/in	≥ 0.54 kg/cm
LINER RELEASE	TLMI Release at 90°, 300 in/min (760 cm/min)	35 g/2 in	6.9 g/cm

NOTE: Recommended post-heat surface temperature of vinyl installed: 200°F to 220°F (95°C to 105°C). Post-heat must be applied gradually and approximately 5" from the film. Standard Terms & Conditions Apply

USE & APPLICATION

CalWrap will resist weathering best when applied to vertical or upper outboard angles. Horizontal angles, such as hood and auto roof surfaces, will deteriorate more quickly than vertical. This is due to increased exposure to sun and moisture, as well as high deposition of dirt and atmospheric contaminants. Actual horizontal weathering will be dependent on maintenance, location and elemental exposure. Use heat and/or chemical when removing image from vehicle.

CalWrap is designed to be used for vehicle wraps and graphics. When wrapping curves and channels with CalWrap, it is recommended the product be draped and not stretched into areas with channels. The manufacturing process of CalWrap poses certain limitations on applications, refer to the CalWrap Installation Guide & information below for installation techniques and recommendations. If you have any questions if CalWrap will work for your specific application, please contact your Arlon Sales Rep.

APPLICATION	INSTALLATION TECHNIQUE REQUIRED	INSTALLATION TECHNIQUE	OVERLAMINATE(S)
VEHICLE/FLEET DECALS			SERIES 3170, SERIES 3220, SERIES 3210, SERIES 3410 OR SERIES 3420
FLAT VEHICLE SIDES			SERIES 3170, SERIES 3220, SERIES 3210, SERIES 3410
SIMPLE CURVES			SERIES 3170, SERIES 3220, SERIES 3210, SERIES 3410
DEEP CHANNELS	X	TIP #48: How to Install on Deep Channels: Using the Inlay Method TIP #49: How to Install on Deep Channels: Using the Cut and Lay-in Method	SERIES 3170, SERIES 3220, SERIES 3210
RIVETS*	X	TIP #50: How to Install on Rivets: The Roller Method TIP #51: How to Install on Rivets: The Poke/Lance Method	SERIES 3170, SERIES 3220, SERIES 3210

*Can be applied on low profile rivets. Rivet vary in shape and size so tenting may appear.

WRAPPING COMPLEX CURVES WITH CALENDERED FILM

Complex curves are panels or components of the vehicle that bend in multiple directions. They're commonly found in bumpers, door handles, side view mirrors, fog light pockets, recessed windows in cargo vans, wheel well channels, and shark fin antennas. Due to calendered films' nature to shrink, do not apply into these areas by bridging and overstretching or a one-piece seamless wrap. Instead, an installer must use cut-outs, inlays, or seams/overlaps.

GLOSSARY OF APPLICATION TERMS

- Simple Curves:** Defined as a slight stretch to the film in one direction (example: the side vehicle).
- Complex Curves:** Defined as extensive stretching (with or without heat) of material in multiple directions (example: bumpers).
- Deep Channel:** Channels in excess of a quarter inch in depth that require a "bridge and stretch" method for application.
- Rivets:** AN470 Universal head 1/2" rivets also known as roundhead trailer rivets, cherry rivets, or button head rivets.




TERMS & CONDITIONS

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