

PRODUCT INFORMATION BULLETIN
Calon[®] EF
ExtraFormable High Performance Film

Series 2100: Non-Perforated

Series 2200: Perforated

- Premium 2-mil cast vinyl in 80 vibrant colors
- Maintains softness over time
- Conforms exceptionally well to rivets, corrugations, and channel structures
- Increased durability – Black white: 10 years; Colors: 8 years; Metallics: 6 years
- Resists embrittlement, cracking and crazing
- Outperforms most films in multilayered graphics

<u>PROPERTY</u>	<u>TEST METHODS</u>	<u>TYPICAL VALUE</u>	
SURFACE FINISH	Gloss Meter, 60° Reflection Matte films	90 units 4-10 units	
THICKNESS (including adhesive)	Micrometer, Federal Bench Type	ENGLISH 0.0032 in	METRIC 0.08 mm
TENSILE STRENGTH	Tensile Tester with 2-in (51 mm) jaw separation crosshead speed of 12 in/min. (5.1 mm/s)	≥4.5 lb/in width	≥788 N/m width
ELONGATION	Instron Tensile Tester as above	Non-metallics ≥170% Metallics ≥100%	
ACCELERATED WEATHERING	Xenon Arc W-O-M at 2000 hours	No appreciable effect	
SHELF LIFE	Free from excessive moisture, temperatures, direct sunlight	2 years from factory shipment	
APPLICATION TEMPERATURE RANGE	On clean substrate	40°F to 120°F 60°F to 90°F optimum	5°C to 50°C 15°C to 30°C optimum
SERVICE TEMPERATURE RANGE	Film applied to etched aluminum panels 24 hours prior to testing	-40°F to 200°F	-40°C to 95°C
HUMIDITY RESISTANCE	Film applied to etched aluminum panels 24 hours prior to testing; 100% relative humidity at 100°F (38°C) for 500 hours	No appreciable effect	
GASOLINE RESISTANCE	Film applied to etched aluminum panels 24 hours prior to testing; immersed 15 minutes at 70°F (21°C); stabilized 24 hours before inspection	No appreciable effect	
DIMENSIONAL STABILITY	158°F (70°C), 48 hours	0.010 - 0.020 in	0.25 - 0.50 mm
PEEL ADHESION	PSTC-1 (15 min) PSTC-1 Ultimate Bond	3.5 lbs/in 5 lbs/in	613 N/m 875 N/m
LINER RELEASE	TLMI 300 in/min (762 cm/min) 2 in (51 mm) wide sample	150 g/2 in	30 g/cm

DURABILITY

Calon® is a "premium" cast film. Standard colors have been weather tested in a variety of rigorous direct exposure locales including Florida, Arizona and California. Custom color matches are derived only from "best weathering" pigments and stabilizer systems, incurring very high durability assurance at short development times.

OPTIMUM PERFORMANCE AND WARRANTY EXCEPTIONS

Actual weathering durability depends on surface preparation, surface maintenance and exposure conditions. Successful weather resistance is characterized by the retention of legibility.

Calon® film will resist weathering best when applied to vertical or upper outboard angles. Horizontal angles such as hood, trunk and auto roof surfaces will weather significantly sooner than vertical and is not recommended. This is due to increased exposure to sun and moisture as well as continued high deposition of dirt and atmospheric contaminants. Arlon does not recommend its Calon® film for use on stainless steel trailers or latex painted surfaces.

OPACITY

High performance vinyl has the greatest hiding power of thin PVC films, however, the opacity does vary with color. 67 Primrose Yellow, 99 Bright Purple, 79 Kiwi, 69 Apple Green, 89 Aqua Blue, 70 Palm Oyster Gray, 04 Gold Metallic, 21 Smoke Metallic and 07 Silver Metallic are not compatible with backlit and window applications. (Only Series 2500 is designed and warranted for backlighting.)

Those hues with high, but not complete opacity include: 01 Red, 14 Tomato Red, 60 Bright Cardinal Red, 11 Dark Blue, 56 Hot Pink, 76 Magenta, 02 White, and 61 Kelly Green. Colors exhibiting low opacity are: 06 Yellow, 67 Primrose Yellow, 69 Apple Green, 79 Kiwi, 83 Bright Orange, 96 Tangerine, 97 Light Orange and 73 Poppy Red. Additionally, metallics are not compatible with backlit or window applications. **Only Series 2500 vinyls are designed and warranted for backlighting.**

ADHESION/CHEMICAL CHARACTERISTICS

ADHESION CHARACTERISTICS	ENGLISH UNITS NOMINAL		CHEMICAL REACTION RESISTANCE	RESULT
	Oz/in	kg/cm		
ALUMINUM (anodized) (Mil spec M-43719)	75	0.84	CHEMICAL AGENTS ACID ENVIRONMENT (Ford spec ESB-M3G5L-B1.3.4.5)	No Change
STAINLESS STEEL (Ford spec. ESB-M3G5L-B1)	60	0.67	SOAP & WATER (Ford spec 3.4.4)	No Change
ACRYLIC LACQUER (Mil spec)	70	0.78	WATER (Ford spec 3.4.6)	No Change
ACRYLIC ENAMEL (Ford spec)	70	0.78	REFERENCE FUEL (Mil spec M43719-A)	No Change
CHROME PLATE (Ford spec)	60	0.67		

CALON® standard film adhesion (PSTC-1) 180°F, peel at room temperature at a rate of 12 inches per minute after 24 hours dwell.

NOTICE TO PURCHASER

Information is based on tests believed to be reliable, but neither accuracy nor completeness is guaranteed.

TERMS AND CONDITIONS

The customer assumes responsibility in determining product suitability for his intended end use. Seller's and manufacturer's only obligation shall be to replace such quantity of the film proven to be defective. Neither the seller nor the manufacturer shall be liable for any injury, loss, or damage, direct or indirect, arising from the use or inability to use this product. See Arlon's Standard Terms and Conditions.



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