



► Series 5500 Diffuser Film

Series 5500: Non-Perforated

APPLICATIONS & FEATURES

- Internally Illuminated Signage
- Evenly diffuses light and controls brightness, eliminates hot spots and provides uniform illumination
- Available in 60% and 30% light transmission
- Superior thermoforming capabilities
- 7-year durability
- Features permanent adhesive and clay coated kraft paper liner

PERFORMANCE & PHYSICAL DATA

PROPERTY	TEST METHODS	TYPICAL VALUE	
SURFACE FINISH	Gloss Meter 60° Reflection	25 to 40 units	
TRANSMISSION VALUES	Spectrophotometer	#30 - 30%	#70 - 60%
THICKNESS	Micrometer, Federal Bench Type	English: 0.0034 in	Metric: 0.09 mm
TENSILE STRENGTH	Tensile Tester 2-in (51mm) jaw separation; crosshead speed of 12 in/min. (5.1 mm/s)	4.5 lb/in width	0.8 kg/cm width
ELONGATION	Instron Tensile Tester as above	≥ 150 %	
SHELF LIFE	Free from excessive moisture, temperature, direct sunlight	2 years from factory shipment	
APPLICATION TEMPERATURE RANGE	On clean substrate	60°F to 90°F optimum	15°C to 32°C optimum
SERVICE TEMPERATURE RANGE	Film applied to etched aluminum panels 24 hours prior to testing	-40°F to 200°F	-40°C to 93° 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	
DIMENSIONAL STABILITY	158°F (70°C), 48 hours	0.015 in	0.4 mm
PEEL ADHESION	PSTC-1, 15 min, RT 70°F (21°C)	≥ 60 oz/in	≥ 0.67 kg/cm
LINER RELEASE	TLMI 300 in/min (760 cm/min)	150 g/2 in	30 g/cm

*Standard Terms & Conditions Apply

USA

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EUROPE

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ADHESIVE

Series 5500 is coated with a specially developed acrylic pressure-sensitive adhesive that facilitates applications over a wide range of temperatures. Initial adhesion, ultimate adhesion and shrinkage properties have been balanced to create a product that is easy to apply, and performs to user expectations. Optimum application temperatures are between 60°F and 90°F (15°C and 32°C), but may be extended by special preparation i.e., heat gun at below 40°F (5°C) and “wet” application at above 90°F (30°C).

DURABILITY

Seven (7) years. Durability will be affected by actual exposure conditions and sign face maintenance. For a copy of Arlon’s complete cut graphics warranty visit https://www.arlon.com/na_en/support/warranties

THERMOFORMING

Durability of the film and gloss of the underlying plastic may be reduced when thermoforming process conditions exceed 360°F for 8 minutes.

USAGE AND APPLICATION INFORMATION

For best results on large, continuous-color signs, be sure to utilize material from the same batch on the same sign face to assure perfect color reflection and transmission across the sign face.

When rejoining sheets or characters, avoid overlapping film if possible. A preferable splice can be achieved utilizing a 45°-mitre cut after determining splice point by overlapping. Strip waste ends from top and bottom, then butt-angle cut together.

The angled butt splice gives best protection from uneven splices, preventing light leaks while avoiding overlaps that will create dark bands along splice edges.

NOTICE TO PURCHASER




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




TERMS & CONDITIONS

The warranties offered in Arlon’s Standard Terms and Conditions, which are incorporated in full by this reference and are available at https://www.arlon.com/na_en/legal/terms-and-conditions, are made in lieu of all other express or implied warranties.




February 2026

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