



# ► Series 5590 Dual Color Film

## Series 5590: Perforated

Series 5590 Dual Color Film is a 4-mil (100 micron), 85/15 perforated cast film with permanent pressure-sensitive adhesive. It is designed for illuminated signage that requires maximum visibility both day and night. Series 5590 is rated for outdoor durability up to 5 years.

### APPLICATIONS & FEATURES

- Superior release and weedability.
- Excellent initial tack and ultimate adhesion.
- Standard Product: white (120), black (122).
- Custom Colors: available upon request.

### PERFORMANCE & PHYSICAL DATA

PROPERTY	TEST METHODS	TYPICAL VALUE	
<b>SURFACE FINISH</b>	Gloss Meter 60° Reflection	25 to 40 Gloss Units	
<b>THICKNESS</b>	Micrometer, Federal Bench Type	4-mil (100 micron)	
<b>PERFORATION PATTERN</b>	Percentage of vinyl vs. open area	85% Vinyl, 15% Open Area	
<b>TENSILE STRENGTH</b>	Tensile Tester 2-in (51mm) jaw separation; crosshead speed of 12 in/min. (5.1 mm/s)	≥ 25 lb/in	≥ 4.46 kg/cm
<b>ELONGATION</b>	Instron Tensile Tester as above	≤ 100%	
<b>SHELF LIFE (IN BOX)</b>	Ideal Storage Temperature 70°F (21°C) and 50% relative humidity	1 year from factory shipment	
<b>APPLICATION TEMPERATURE RANGE</b>	On clean, dry substrate	60°F to 90°F optimum	15°C to 32°C optimum
<b>SERVICE TEMPERATURE RANGE</b>	Film applied to etched aluminum panels 24 hours prior to testing	-40°F to 200°F	-40°C to 93° C
<b>DIMENSIONAL STABILITY</b>	158°F (70°C), 48 hours	≤ 0.025 in	0.635 mm
<b>PEEL ADHESION</b>	PSTC-1, 15 min, 70°F (21°C)	≥ 5 lb/in	≥ 0.89 kg/cm
<b>LINER RELEASE</b>	TLMI Release at 90°, 300 in/min (760 cm/min)	20 g/2 in	4 g/cm

Standard Terms & Conditions Apply

## ADHESIVE

This 4-mil (100 micron) dual color film is coated with acrylic pressure-sensitive adhesive which 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 30°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). The addition of heat during removal will make the process much cleaner and faster. Where possible allow the surface to reach 80°F/27°C or more before removing the film. Where ambient temperature is not that high use either a very “soft” flame type torch or heat gun to bring the temperature up. Arlon recommends getting the film and under laying adhesive above 100°F/38°C.

## DURABILITY

Five (5) years, unprinted. Durability will be affected by any printing or clear coating, as well as actual exposure conditions and sign face maintenance.

## USAGE AND APPLICATION INFORMATION

The properties of this application are best demonstrated when the dual color film is applied over clear acrylic or polycarbonate and a diffuser is installed as a second surface layer to the substrate. The diffuser film will hide light box components while offering good light dispersion.

For best results on large, continuous-color signs, be sure to utilize material from identical rolls on the same sign face to assure perfect color reflection and transmission across the sign face. This film is directionally sensitive; therefore, nesting characters is not recommended.

Sheets should be continuous rather than spliced. Butting splices or overlaps will create an inconsistent appearance at the joined area.

When installing large graphics on glass, Plexiglas® or acrylic sign faces, it is useful to follow “wet” application techniques. This will reduce trapped air problems and aid in repositionability for proper registration. Care should be taken to thoroughly remove entrapped water through high squeegee pressure.





Series 5590 is not compatible with standard paint systems. For print recommendations, please contact your regional sales manager.








## TERMS AND CONDITIONS

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