



► Series 5590 Dual Color Film

Series 5590: Perforated

Series 5590 Dual Color Film is a 4-mil (100 microns), 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
SURFACE FINISH	Gloss Meter 60° Reflection	25 to 40 Gloss Units
THICKNESS	Micrometer, Federal Bench Type	100 microns
PERFORATION PATTERN	Percentage of vinyl vs. open area	85% Vinyl, 15% Open Area
TENSILE STRENGTH	Tensile Tester with 2-in (51 mm) jaw separation; crosshead speed of 12 in/min. (5.1 mm/s)	≥ 4.46 kg/cm
ELONGATION	Instron Tensile Tester as above	≤ 100%
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	15°C to 32°C optimum
SERVICE TEMPERATURE RANGE	Film applied to etched aluminum panels 24 hours prior to testing	-40°C to 93°C
DIMENSIONAL STABILITY	158°F (70°C), 48 hours	0.635 mm
PEEL ADHESION	PSTC-1, 15 min, 70°F (21°C)	≥ 0.89 kg/cm
LINER RELEASE	TLMI Release at 90°, 300 in/min (760 cm/min)	4 g/cm

Standard Terms & Conditions Apply

USA

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

EUROPE

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

CHINA

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

ADHESIVE

This 100 microns 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 15°C and 30°C, but may be extended by special preparation i.e., heat gun at below 5°C and “wet” application at above 30°C. The addition of heat during removal will make the process much cleaner and faster. Where possible allow the surface to reach 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 38°C.

DURABILITY

Five 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


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

All statements, technical information and recommendations published by Arlon relating to Arlon products are based on tests believed to be reliable and within the accuracy of the equipment used to obtain the specific values. Their accuracy or completeness is not guaranteed and Arlon makes no warranty with regard thereto. Seller's and manufacturer's only responsibility shall be to replace any quantity of the product proved defective. Seller and manufacturer shall not be liable for injury, loss or damage, direct or consequential, arising out of use or the inability to use the product. Nor shall seller or manufacturer be liable for any costs or expenses incurred in the processing or printing on the product. Before using, user shall determine the suitability of the product for its intended use. User assumes all risk and liability of every nature in connection therewith. No statements or recommendations other than those contained in the technical information published by Arlon shall have force or effect unless contained in an agreement manually signed by the officers of seller and manufacturer.

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