Avery Dennison® MPI 3709
Perforated Window Film 60/40

Features

- Perforated film with white print face, black on adhesive side for one way vision graphics
- Very good printability on Eco solvent, Solvent and UV curable inkjet printers
- 1.5 mm holes with 40% open area
- Good outdoor durability
- Good Dimensional stability
- Good adhesion level on glass substrates
- Removable with heat and/or chemicals

Description

Film: 150 micron white/black perforated monomeric calendered vinyl

Adhesive: Removable acrylic

Liner: One side PE coated non-perforated kraft paper, 168g/m^2

Outdoor Life:** Up to 1 year (unprinted)

Application surface: Flat, simple curves

Conversion*

- ☐ Flat bed cutters
- ☐ Friction fed cutters
- ☐ Die cutting
- ☐ Thermal transfer
- ☐ Screen printing
- ☐ Offset printing
- ☐ Cold overlaminating
- ☐ Electrostatic printing
- ☐ Water based inkjet
- ■ **Eco solvent inkjet**
- ■ **Solvent inkjet**
- ■ **UV curable inkjet**

*Always test with your combination of printer and inks prior to commercial use.

Common Applications

- Window graphics
- Vehicle & bus window graphics
- Building wraps
- Retail & commercial signage
- Bus shelters
- POP displays
- Other transparent surfaces

Application

If exposed to rain, the use of an optically clear, compatible overlaminate is recommend to prevent the holes from filling with water and/or dirt to ensure clear vision. Avery Dennison DOL 4100 is only recommended for 100% flat windows. Avery Dennison DOL 4000 can be used for either flat or slightly curved windows.

Uses

Avery Dennison MPI 3709 is a digital printable white/black perforated calendered vinyl film for use in a wide range of promotional window graphics applications where one way vision, removability and value for money is required. Used on vehicles for continuous, uninterrupted vehicle graphics covering painted and window areas and large size graphics on building windows that still provide sufficient interior daylight and exterior viewing.

Physical characteristics

General

Caliper, face film	ISO 534	150 micron
Caliper, face film & adhesive	ISO 534	***
Open area		40% (approx.)
Perforation diameter		1.5mm
Dimensional stability	DIN 30646	0.5 mm max
Adhesion, ultimate, perforated	FINAT FTM-1, glass	120 N/m
Adhesion, ultimate, unperforated	FINAT FTM-1, glass	320 N/m
Removability^	Smooth OEM painted surfaces	up to 1 year
Shelf life	Stored at 22° C/50-55 % RH	1 year
Durability **	Vertical exposure	up to 1 year unprinted

^ Not when applied to: Nitrocellulose paint, ABS, Polystyrene, screen printing inks (fresh), certain types of PVC, Polycarbonate or PMMA.

Temperature Range

Minimum Application temperature	+10°C
Temperature range	- 20°C to + 65°C

Chemical

If not overlaminated, Avery Dennison MPI 3709 is resistant to water, humidity, solvents, most mild acids, alkalies and salt. Due to the open structure of the film, exposure should be limited to an absolute minimum. Overlaminated Avery Dennison Perforated Window Film has the same resistance to chemical substances as the overlamnated film.

Avery Dennison Perforated Window Film is also resistant to most commonly used cleaning detergents, provided that thourough rinsing is following the recommended exposure to the cleaning detergents.

Note:

Materials have to be properly dried and cured before further processing, like laminating, varnishing, trimming, contour cutting or application. The residual solvents can otherwise change the products' specific features and properties.

Important

Information on physical characteristics is based upon tests we believe to be reliable. The values listed herein are typical values and are not for use in specifications. They are intended only as a source of information and are given without guarantee and do not constitute a warranty. Purchasers should independently determine, prior to use, the suitability of any material for their specific use.

All technical data is subject to change without prior notice.

Warranty

Avery® materials are manufactured under careful quality control and are warranted to be free from defect in material and workmanship. Any material shown to our satisfaction to be defective at the time of sale will be replaced without charge. Our aggregate liability to the purchaser shall in no circumstances exceed the cost of the defective materials supplied. No salesman, representative or agent is authorised to give guarantee, warranty, or make any representation contrary to the foregoing.

All Avery® materials are sold subject to the above conditions, being part of our standard conditions of sale, a copy of which is available on request.

****Durability**

Durability is based on exposure conditions in the Asia Pacific region. Actual performance life will depend on substrate preparation, exposure conditions and maintenance of the marking. For instance, in the case of signs facing north in the southern hemisphere or south in the northern hemisphere; in areas of long high temperature exposure such as northern Australia; in industrially polluted areas or high altitudes, exterior performance will be decreased.

+Compatible with most media and ink combinations. Test prior to use.

***Information unavailable at time of printing.

Test Methods

Dimensional stability:
Is measured on a 150 x 150 mm aluminium panel to which a specimen has been applied; 72 hours after application the panel is exposed for 48 hours to + 70°C, after which the shrinkage is measured.

Adhesion:
(FTM-1, FINAT) is measured by peeling a specimen at a 180° angle from a stainless steel or float glass panel, 24 hours after the specimen has been applied under standardised conditions. Initial adhesion is measured 20 minutes after application of the specimen.

Flammability:
A specimen applied to aluminium is subjected to the flame of a gas burner for 15 seconds. The film should stop burning within 15 seconds after removal from the flame.

Temperature range:
A specimen applied to stainless steel is exposed at high and low temperatures and brought back to room temperature. 1 hour after exposure the specimen is examined for any deterioration. Note: Prolonged exposure to high and low temperatures in the presence of chemicals such as solvents, acids, dyes, etc. may eventually cause deterioration.

Chemical Resistance:
All chemical tests are conducted with test panels to which a specimen has been applied. 72 hours after application the panels are immersed in the test fluid for the given test period. 1 hour after removing the panel from the fluid, the specimen is examined for any deterioration.

Corrosion Resistance:
A specimen applied to aluminium is exposed to saline mist (5% salt) at 35ºC. After exposure, the film is removed and the panel is examined for traces of corrosion.