# Avery Dennison® MPI 2120

# Matte White Blockout Calendered Vinyl Permanent (Formerly MPI 2010)

## **Features**

- Excellent printability and handling on all latex, eco-solvent and solvent inkjet printers
- Matte finish for superior low glare appearance
- · Dimensionally stable StaFlat liner provides easy converting properties
- · Excellent dimensional stability during use
- · Good conformability to flat and simple curved surfaces
- · Very good outdoor durability and performance
- Opaque film provides 100% blockout performance
- · Excellent adhesion to most popular substrates

# **Description**



Film: 86 micron matte white opaque polymeric calendered vinyl



Adhesive: Permanent acrylic



**Backing**: Two side PE coated Staflat<sup>TM</sup> paper



Outdoor life: Up to 6 years (unprinted)

**Application surface**: Flat, simple curves, gentle corrugations

# Conversion<sup>+</sup>

Flat bed cutters	Cold overlaminating
Friction fed cutters	Electrostatic printing
Die cutting	Latex inkjet
Thermal transfer	Eco solvent inkjet
Screen printing	Solvent inkjet
Offset printing	UV curable inkjet

# **Common Applications**

- Flat sided trucks
- · Cars and vans
- · Trains and light rail
- POP & Display
- Outdoor advertising

# Uses

Avery Dennison MPI 2120 Matte Permanent  $^{\text{TM}}$  is a matte white high performance calendered vinyl film designed for use in a wide range of outdoor advertising and general signage applications where excellent outdoor durability and excellent print quality are required.

<sup>&</sup>lt;sup>+</sup>Always test with your combination of printer and inks prior to commercial use.

# Physical characteristics

# General

Calliper, face film	ISO 534	86 micron
Calliper, face film & adhesive	ISO 534	111 micron
Dimensional stability	DIN 30646	< 1.651 mm
Gloss	Hunter Gloss @ 60	< 16
Adhesion, initial	FINAT FTM-1, stainless steel	831 N/m
Adhesion, ultimate	FINAT FTM-1, stainless steel	***
Flammability		Self extinguishing
Shelf life	Stored at 20-25 ° C / 45-55 % RH	2 years
Durability **	Vertical exposure ^	Up to 6 years unprinted

<sup>^</sup> See ICS Performance Guarantee Durability Bulletin for your specific printer and ink combination for further information

# **Thermal**

Application temperature	Minimum: + 4°C
Temperature range	- 40°C to + 82°C

#### Chemical

Resistant to most mild acids, alkalies and salts

# Note:

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

# **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.

#### 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 Dennison® 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 Dennison® 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 normal middle European and central North American regions. 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. Please refer to Avery Dennison Instructional Bulletin 1.3 for definitions and reductions based on the 'Zone System'.

<sup>+</sup>Compatible with most printer and ink combinations. Test prior to use.

\*\*\*Information unavailable at time of printing.

### 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 35°C. After exposure, the film is removed and the panel is examined for traces of corrosion.

