

# Avery® HP MPI 2528 Perforated 50/50

Permanent StaFlat

(formerly: MPI 4002)

Revision: 4 Dated: 12/17/2010

## Uses:

Avery HP MPI 2528 Perforated Window Film 50/50 is a perforated flexible calendered film for use on exterior-mount one-way visual panels. Graphics printed on this material are visible from the front and “invisible” from the back when mounted on windows. HP MPI 2528’s 50/50 perforation pattern provides an open area of 50% allowing for the best possible visibility through a one-way graphic panel. This film is intended for vehicle windows or applications where visibility through the graphic is important.



**Face:** 7 mil (178 microns) low gloss white calendered with black reverse



**Adhesive:** Removable Acrylic (clear)



**Liner:** 90# StaFlat with clear back laminate



**Durability:** Up to 3 years (unprinted)

**Application Surfaces:**

Flat, simple curves

## Features:

- One-way visibility for window applications
- 50/50 hole pattern allows visibility for vehicle graphics
- 1.5 mil hole provides light transmission
- Great image clarity and color pop
- Provides up to 50% reduction of indoor solar heat gain for window applications

## Conversion:

- Thermal Die-Cutting
- Flat Bed Sign-Cut
- Drum Roller Sign-Cut
- Steel Rule Die-Cutting

- Thermal Transfer
- Screen Printing
- Cold Overlaminating
- Water based inkjet

- Solvent based inkjet
- Mild/Eco Solvent inkjet
- UV inkjet
- Latex Inkjet*

## Common Applications:

- Fleet
- Vehicle
- Marine/ Watercraft

- Backlit Signs
- Wall Murals
- POP/ Tradeshow

- Window Graphics
- Outdoor Signage
- Floor Graphics



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## Physical Characteristics:

Property	Value	
Caliper, face	7 mil (178 µm)	
Caliper, adhesive	1.0mil (25 µm)	
Dimensional stability	Note: Ink loads in excess of 250% may cause increased shrinkage of the printed film.	
Tensile at Yield		
Elongation		
Gloss	N/A	
Adhesion: 15 min. Removable	4.0 lbs/in (700 N/m)	
Flammability	Self Extinguishing	
Shelf-Life	1 year	
Durability	Vertical Exposure	Unprinted – 3 years Printed – Up to 1 year
Min. Application Temperature	50° F (10° C)	
Service Temperature	-50° - 180°F (-45° - 82° C) (Reasonable range of temperatures which would be expected under normal environmental conditions).	
Chemical resistance	Resistant to most mild acids, alkalis, and salt solutions.	

### Important:

Information on physical and chemical characteristics are based on tests believed to be reliable. The values are intended only as a source of information. This information is given without guaranty and do not constitute a warranty. The purchaser should independently determine, prior to use, the suitability of any material for their specific purpose. (Data represents average values where applicable, and is not intended for specification purposes)

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## Dimensional stability:

Is measured on a 6" x 6" (150 x 150 mm) aluminum panel to which a specimen has been applied; 72 hours after application the panel is scored in a cross pattern, exposed for 48 hours to 150°F (65°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 panel, 24 hours after the specimen has been applied under standardized conditions. Initial adhesion is measured 15 minutes after application of the specimen.

## Flammability:

A specimen applied to aluminum 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.

## Special Considerations:

Because of the unique properties and varieties of glass, special considerations must be considered for windows and graphic applications. Avery Dennison accepts no liability for glass breakage.

- Glass absorbs heat when exposed to sunlight. The degree of absorption across windows can vary because of shading, heating, and cooling ventilation, and insulation from window frames. These temperature differences across the window produce stress, which can cause glass breakage. The ability of glass to resist breakage because of temperature stress is affected by window size, glass thickness, glass treatments, quality, and design.
- Window cleaning methods also vary, from the type of cleaners used, to the washing methods employed. Specific chemicals used in window cleaners may affect the adhesion of pressure-sensitive graphics. Power washing methods may impact the adhesion of graphics, if the water pressure or temperature exceeds the graphic's adhesion capability.

*Revisions are italicized*

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