

AveryDennison® HP MPI 2121 Transit Vinyl

Removable StaFlat™

(formerly: MPI Transit Vinyl)

Revision: 9 Dated: 03/04/14

Uses:

Avery Dennison® HP MPI 2121 Transit Vinyl is a specially engineered, flexible calendered vinyl film that has been specifically designed for use in the temporary transit advertising market. HP MPI 2121 Transit Vinyl can be applied to bus advertising panels and directly to the bus surface.



Face: 3.4 mil (86 microns)matte



Adhesive: Removable Acrylic(clear)



Liner: 90# StaFlat™



Durability: Up to 1year (unprinted)

Application Surfaces:

Flat, simple curves (restricted to non-spill areas)

Features:

- 100% opacity, completely covers whatever is underneath
- Pre-approved CBS® Outdoor and Titan Media for King, Queen, and Tail bus posters
- Matte finish
- Great image clarity and color pop
- Dimensionally stable liner for easy converting
- ICC profiles available on Avery Dennison's website (avery-us.color-base.com)
- ASTM E84 Class 1 or A rating
- Removable without heat

Conversion:

- Thermal Die-Cutting
- Flat Bed Sign-Cut
- Drum Roller Sign-Cut
- Steel Rule Die-Cutting
- Screen Printing
- Solvent based inkjet
- Mild/Eco Solvent inkjet
- UV inkjet
- Latex Inkjet

Common Applications:

- Bus / Transit Ad
- Fleet
- Vehicle
- Wall Murals
- POP/ Tradeshow
- Window Graphics
- Outdoor Signage
- Floor Graphics

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Physical Characteristics:

Property		Value
Caliper, face		3.4 mil (86µm)
Caliper, adhesive		1.0mil (25 µm)
Dimensional stability		<0.065"(1.651 mm)
		Note: Ink loads in excess of 250% may cause increased shrinkage of the printed film.
Tensile at Yield		
Elongation		
Gloss	Hunter Gloss @ 60	<16
Adhesion: 15 min.		1.0lbs/in (175 N/m)
24 hr		1.2 lbs/in (210 N/m)
1 week		1.8lbs/in (315 N/m)
Removability		1 year from most substrates (without heat)
Flammability	ASTM E84 Class 1 or A rating	<u>Self Extinguishing</u>
Shelf-Life		2 years from date on label (up to 2 years unprocessed, OR process within one year and apply within 1 year of processing)
Durability	Vertical Exposure	1 year durability with clean removability from most OEM surfaces, with little or no adhesive residue
Min. Application Temperature		40°F (4°C)
Service Temperature		-40° - 180°F (-40° - 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)

Warranty:

All statements, technical information and recommendations about Avery Dennison products are based upon tests believed to be reliable but do not constitute a guarantee or warranty. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its purposes. Avery Dennison products are warranted to be free from defects in material and workmanship for either two years (or the period stated on the specific product information literature in effect at time of delivery, if longer) from date of shipment if said product is properly stored and applied. It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective product without charge at Avery Dennison's plant or at the location of product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the product.

Avery Dennison's liability for defective products shall not exceed the purchase price paid therefore by Purchaser and in no event shall Avery Dennison be responsible for any incidental or consequential damages whether foreseeable or not, caused by defects in such product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence.

NO EXPRESS WARRANTIES AND NO IMPLIED WARRANTIES, WHETHER OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE, OR OTHERWISE (EXCEPT AS TO TITLE), OTHER THAN THOSE EXPRESSLY SET FORTH ABOVE WHICH ARE MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, SHALL APPLY TO PRODUCTS SOLD BY AVERY DENNISON. AVERY DENNISON SPECIFICALLY DISCLAIMS AND EXCLUDES ALL OTHER SUCH WARRANTIES. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.

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Warranty Coverage Overview:

General Warranty

This film is covered by the Avery Dennison General Warranty. The film has been tested and believed to be a good product when used as recommended in this Product Bulletin. However, for untested printer/ink combinations there is no assurance or guarantee for the following:

- Printability
- Visual appearance
- Fitness for use
- Removability or changeability
- Damage to the substrate
- Durability

ICS Performance Guarantee

When used with the approved printer and ink combination this film is covered by the Avery Dennison Performance Guarantee. It has been tested and believed to be a good product when used as recommended in this Product Bulletin. However, there is no assurance or guarantee for the following:

- Fitness for use
- Removability or changeability
- Damage to the substrate

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.

Removability:

- **“Removable Adhesive”** means an Avery Dennison® adhesive that can be removed without heat or chemicals within the period stated on the respective Product Data Sheet and might leave twenty percent (20%) or less adhesive residue.

Avery Dennison does not guarantee removability from the following substrates:

- Surfaces with poor paint-to-substrate adhesion
- Wallboard
- Existing graphics that must remain intact; damage to existing graphic when film is removed
- Aged paint or metal that may have surface oxidation or chalking
- Outdoor, horizontal surfaces

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Limitation of End Uses:

This Avery Dennison product is not designed or recommended for the following uses. Unsuitable applications or exposure conditions include:

- Corrugated, channels
- Compound / complex curves
- Highly-irregular surfaces
- Stainless Steel
- Paint that is not thoroughly cured or dried
- Low surface energy substrates (i.e. Tedlar® coatings)
- Unclean or textured surfaces

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.

Also tested to ASTM E-84 method for surface burning characteristics of building materials. Documentation from third party testing agency available upon request.

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.

Revisions are italicized

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