

Avery Dennison® MPI1903 Cast Film

Revision: 1

Dated: 02/04/26

Uses:

Avery Dennison® MPI1903 Cast Vinyl Film is a multipurpose gloss opaque vinyl designed for use in fleet marking and vehicle wrap as well as corporate identity applications. MPI1903 provides excellent conformability to irregular surfaces such as compound curves and corrugations. The Easy Apply™ RS feature offers the benefit of reduced wrinkling and air entrapment inherent in the application of decals. The RS feature also provides repositionability and slideability for exact positioning. Graphics can be overlaminated or clear coated with a UV screen print clear. Reference ICS Documentation for coverage.



Face Film: 2.0 mil (51 µm) high gloss cast film



Adhesive: Patented Advanced Acrylic Adhesive Technology (PAAAT)



Liner: 90# Easy Apply RS™



Durability: Up to 7 years (printed)



Shelf Life: 2 years from date of manufacture

Application Surfaces: Flat, Flat with Rivets, Corrugations, Complex Curves (vehicle wraps)

Features

- Superior conformability to irregular substrates
- The air egress technology on Easy Apply RS films helps eliminate wrinkles and bubbles
- RS feature provides slideability and allows for easy positioning
- High gloss finish
- Excellent durability and outdoor performance
- Dimensionally stable liner for easy converting
- Excellent dimensional stability
- Removable with heat and chemicals

• [ICC profiles available on the Avery Dennison website](#)

Conversion

- Latex inkjet
- Solvent based inkjet
- Mild/Eco Solvent inkjet
- UV inkjet*
- Screen Print**

*For flat surfaces only, except for qualified flexible UV inks

**Approved for use with Nazdar 3500 Series Ink and Nazdar 3529 or 3539 Clear

Common Applications

- Vehicle
- Fleet
- POP/Trade Show
- Outdoor Signage

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Physical Characteristics

Data represents average values where applicable, and is not intended for specification purposes.

Property	Measurement	Typical Value
Caliper, face		2.0 mil (51 µm)
Caliper, adhesive		1.0mil (25 µm)
Dimensional stability		<0.015" (0.4 mm) Note: Ink loads in excess of 250% may cause increased shrinkage and/or increased initial adhesion of the printed film
Tensile at Yield		4.0 - 8.0 lb/in (0.7–1.5 kg/cm)
Elongation		200% min.
Gloss	Hunter Gloss @ 60 degrees	90 GU
Adhesion	Stainless Steel 15 min 24 hr 1 week	1.5 lbs/in (263 N/m) 2.2 lbs/in (385 N/m) 2.2 lbs/in (385 N/m)
Flammability	FMVSS 302	Self Extinguishing
Shelf-Life		2 years from date of manufacture (when stored at the following temperatures and humidity conditions 68°-77° F (20° - 25° C) and 50±5%R. H.)
Durability	Vertical Exposure	up to 7 years – see ICS Documentation for printed durability
Min. Application Temperature		45° F (7° C) Flat 50° F (10° C) Flat w/Rivets, Corrugations 60°F (16° C) Complex curves Passenger vehicles keep at or above minimum application temperature for as long as possible — at least 12 hours is recommended. Trailers and box trucks keep at or above minimum application temperature for as long as possible - at least 12 hours is recommended.
Service Temperature		-40° to 180°F (-40° to 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
Compliance		California Prop 65
MSDS		MSDS Article Letter

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Related Documents

The following Avery Dennison literature will provide complete information to the user for proper application, storage, and other requirements and is available upon request from your Avery Dennison representative or from the [Avery Dennison® website](#).

Document Title	Instructional Bulletin
Substrate Cleaning and Preparation	1.10
Storage, Maintenance, and Cleaning of PVC Films	1.20
Cleaning and Maintenance of Vehicle Wraps	1.50
Application of Avery Dennison SuperCast Films on Irregular Substrates	4.07
Premask Recommendations	5.50
Removal Instructions	4.10

Application

Avery Dennison MPI 1903 Series is designed for application onto solid surfaces such as passenger vehicles, buses, and trains. To ensure color consistency when wrapping a vehicle, ensure the material used is from one production lot # of material. Some slight color shift may occur between rolls or lots, therefore minimizing the mixing of rolls/lots on a specific vehicle is encouraged. If multiple rolls are needed, be sure to use only rolls from the same production lot.

Important Note: Never use a wet application method to apply this film.

All vehicle substrates must be cleaned according to Avery Dennison recommended cleaning practices as outlined in IB # 1.10 "Substrate Cleaning and Preparation".

See IB 4.07 "Application Avery Dennison SuperCast films on Irregular Substrates" for complete application recommendations. For cleaning and care recommendations see IB 1.50.

NOTE: MPI1903 is designed as a wrap film. Cutting for the purpose of preparing sizes or shapes has proven to be feasible. However, sign cutting of small letters and graphics is not recommended. If sign cutting is necessary, it is not recommended to cut letters/numbers smaller than 2 inches. For contour cutting, it is recommended to round off sharp edges to prevent lifting of the graphic at these points.

Important Note: Only use Avery Dennison recommended cleaning products and solutions (noted in IB 1.50). Cleaning and maintenance products should conform to the following:

- Free from abrasive components
- Ideally pH balanced, thus not highly acidic or alkaline (pH level between 5 and 9)
- Free from alcohol (non isopropyl), acids, ammonia, chlorine, glycol ethers, harmful detergents, petroleum distillates and phosphates

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Unsuitable Uses

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

- Paint that is not thoroughly cured or dried
- Low surface energy substrates (i.e. Tedlar® coatings, rubber, unpainted plastic etc.)
- Substrate surfaces that are not clean and smooth (little or no variation in texture)
- Painted substrates with poor paint-to-substrate, or paint-to-paint bond
- Film applied to non-Avery Dennison Films
- Film applied to pre-existing graphics (pre-approval required)
- Watercraft
- Non-OEM painted vehicles
- Graphic removal from paint with poor adhesion or existing graphics
- Graphics exposed to oil, harsh chemicals, or gasoline vapors or spills
- Graphics where application tape must adhere to liner

Removability

MPI1903 may leave more than 20% adhesive behind when just heat is used. Chemicals may be required to remove adhesive residue. See Instructional Bulletin 4.10 for removal instructions.

Application to Glass

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. Power washing window graphics is not recommended.

Revisions are italicized

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Warranty:

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