

Avery Dennison® MPI 1105 Wrapping Film

Fleet branding, vehicle wraps, and signage

The ultimate wrapping solution, MPI 1105 brings new levels of printability and consistent image quality on vehicle and signage applications. Combine the versatile MPI 1105 wrapping film series with DOL Max or PVC free alternatives DOL 6460 or DOL 6470 overlaminates to ensure outstanding extended graphic durability, performance and vibrant color pop.

Features and Benefits

- ▶ Reliable high-quality print performance across all digital platforms: latex, solvent, eco-solvent and UV
- ▶ Easy Apply™ and Easy Apply™ RS technology delivers superior repositionability and slideability of graphics, increasing productivity and reducing application time
- ▶ Clean removability after long-term lifespan
- ▶ Enhance color and depth of image and protect demanding outdoor applications from abrasion, scratching and UV with our DOL portfolio

Recommended Uses

- ▶ Commercial vehicle and truck branding
- ▶ Full or partial vehicle wraps
- ▶ Boat wraps and graphics
- ▶ Signage



Product Information



MPI 1105 Wrapping Film Series & DOL Durability

MPI 1105, MPI 1105 EZ, MPI 1105 EZ RS

| Overlamine | Durability (Years) |
|-------------------------------------|--------------------------------|
| DOL 1060 Max Gloss | Up to 7 Vertical, 2 Horizontal |
| DOL 1360 Max Optically Clear, Gloss | Up to 7 Vertical, 2 Horizontal |
| DOL 6460 PVC Free Gloss | Up to 6 Vertical, 3 Horizontal |
| DOL 6470 PVC Free Luster | Up to 6 Vertical, 3 Horizontal |
| DOL 1060Z Gloss | Up to 5 Vertical |
| DOL 1080Z Matte | Up to 5 Vertical |
| DOL 1360Z Optically Clear, Gloss | Up to 4 Vertical |
| DOL 1370Z Luster | Up to 4 Vertical |
| DOL 1380Z Matte | Up to 4 Vertical |

MPI 1105 must be combined with the recommended DOL products for Avery Dennison to warrant the film for its full durability.

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For information on warranty terms, exclusions and certain limitations that apply please see our website: graphics.averydennison.com
All statements, technical information and recommendations about Avery Dennison products are based upon tests and information believed to be reliable but do not constitute a guarantee or warranty of any kind. All Avery Dennison products are sold with the understanding that the purchaser has independently determined the suitability of such products for its intended and other purposes.



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Avery Dennison® MPI1105 SuperCast Series

LTR Easy Apply RS

Revision: 10 Dated: 03/06/23

Uses:

Avery Dennison® MPI1105 SuperCast Series Vinyl is a premium gloss opaque vinyl designed for use in fleet marking and vehicle wrap as well as corporate identity applications. MPI1105 provides superior conformability to irregular surfaces such as compound curves and corrugations Easy Apply™ and Easy Apply™ RS features offer the benefits 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: 2.0 mil (51 microns) high gloss cast film



Adhesive: Long Term Removable Acrylic (clear with gray opacifying layer)



Liner: 90# StaFlat™ (Smooth)
90# Easy Apply™
90# Easy Apply™ RS

Application Surfaces:

Flat, Flat with Rivets, Corrugations, Complex Curves (vehicle wraps)

Features:

- Superior conformability to irregular substrates
- The air egress technology on Easy Apply and Easy Apply RS films helps eliminate wrinkles and bubbles
- RS feature provides slideability allows for easy positioning
- High gloss finish
- Outstanding durability and outdoor performance
- Dimensionally stable liner for easy converting
- Excellent dimensional stability
- Long term removable provides permanent adhesion, but removes cleanly
- ICC profiles available on the Avery Dennison's website (<http://avery-us.color-base.com>)
- Meets the requirements of IMO FTP Code Part 2 & 5 for all material categories

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
- Marine / Watercraft

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Physical Characteristics:

| Property | Measurement | Typical Value |
|------------------------------|---|--|
| Caliper, face | | 2.0 mil (51µm) |
| Caliper, adhesive | | 1.0 mil (25 µm) |
| Dimensional stability | | <0.015" (0.4mm) 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: | 90# StaFlat (Smooth) 15 min 24 hr 1 week Easy Apply 15 min 24 hr 1 week Easy Apply RS 15 min 24 hr 1 week | 2.7 lbs/in (473 N/m) 3.5 lbs/in (613 N/m) 4.4 lbs/in (770 N/m) 1.8 lbs/in (315 N/m) 2.1 lbs/in (367 N/m) 4.0 lbs/in (700 N/m) 1.8 lbs/in (315 N/m) 2.1 lbs/in (367 N/m) 4.0 lbs/in (700 N/m) |
| Flammability | FMVSS 302 ASTM E-84 ASTM E-162 ASTM E-662 IMO FTP Code | Self Extinguishing Class 1 or A rating Pass Pass Meets the requirements Part 2 & 5 for all material categories |
| Shelf-Life | | 2 years from the 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 and/or Watercraft Passenger vehicles and watercraft must remain at or above minimum application temperature for at least <i>12 hours</i> . Trailers and box trucks must remain at or above minimum application temperature for at least 12 hours |
| Service Temperature | | -50° to 180°F (-45° 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 Proposition 65 |

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

Warranty:

This Warranty applies to the Product listed in this Data Sheet. All statements, technical information (including physical and chemical characteristics) 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 subject to the Purchaser's assent and agreement that Purchaser is responsible for, and has independently determined, the suitability of such products for its purposes or its customer's purposes. Avery Dennison products are warranted to be free from defects in material and workmanship (i) for two years from the date of manufacture, or (ii) from the date of manufacture until the expiration of the period stated on the specific Product Data Sheet in effect at the time of delivery.. Such time periods are subject in either case to the proper storing and application of said product, and the failure to properly store or apply the product, including without limitation the failure to follow any applicable Instructional Bulletin, negates any warranty. 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 exclusively to: (a) repair or replacement of defective product without charge at Avery Dennison's plant or at the location of the product (at Avery Dennison's election), or (b) in the event repair or replacement are not commercially practical, a credit amount up to the price of the product taking into account the defect in the product in Avery Dennison's sole discretion.

THE WARRANTY EXPRESSLY SET FORTH ABOVE IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR USE AND/OR NON-INFRINGEMENT. SELLER 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.

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.

All sales and contracts for sale of Products are subject to Purchaser's assent and agreement to this Warranty. Avery Dennison hereby objects to any terms or conditions contained in any purchase order or other communication of any kind from the Purchaser that is conflicting, inconsistent or additional to this Agreement.



Failure to install the film in full compliance with Avery Dennison's installation instructions may result in personal injury or property damage. Read and follow all instructions when installing the film.

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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 (www.graphics.averydennison.com).

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

Application:

Avery Dennison MPI 1105 Series is designed for application onto solid surfaces such as passenger vehicles, buses, trains, and watercraft. 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: MPI1105 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 below the static water line
- Watercraft which are not edge sealed
- 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:

The removability listed in the features section “Clean removability” means removable with less than 20% adhesive residue when using appropriate heat and chemical removal methods. See Instructional Bulletin 4.10 for removal instructions. Avery Dennison will reimburse a reasonable portion of extra removal costs, not to exceed the cost of the film used on the application.

Avery Dennison does not warrant removability from the following substrates:

- **Surfaces with poor paint-to-substrate adhesion**
- **Wallboard (painted or unpainted)**
- **Pre existing graphics that must remain intact; damage to existing graphic when film is removed**
- **Improperly cured paint**
- **Oxidized or chalked substrates**
- **Horizontally exposed outdoor applications (as defined in Instructional Bulletin 1.30).**
- **Stainless Steel**

Avery Dennison makes no warranty for:

- **Paint Staining: Avery Dennison does not warrant vehicle paint staining that may be visible after removing material which has cracked or discolored. To reduce the risk of this problem, always remove the graphic at the first sign of a change in the surface of the material.**
- **Ease or speed of removal of any graphic**
- **Removal from automotive paint that is greater than 5 years old.**
- **Removal from paint that is improperly cured**
- **Removal from aged paint or metals, surface oxidation or chalking; user must test, approve and accept liability for such applications.**
- **Removal from horizontally-exposed outdoor applications.**
- **Saltwater marine applications**
- **Marine applications below the water line**

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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

Patent Registration:

US6,630,049, US7,060,351, US7,344,618, EP1276605, EP1282472

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