

Technical specification sheet

Ball & Doggett

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Product: Avery Dennison® MPI 1105 Cast Vinyl

Gloss White Cast with Easy Apply RS™ Technology



Graphics
Solutions

Category: Sign, Display & Digital - Solvent, Latex, Eco Solvent

Technical specifications:

Features

- Easy Apply RS™ adhesive system with air egress channels to easily eliminate bubble and wrinkle during application
- Slides smoothly on surface for exact positioning: RS™ technology stands-off from surface until pressure is applied
- Low adhesive tack level allows graphics to be repositioned during application
- Excellent printability on eco-solvent, solvent, latex and UV curable printers
- Advanced face formulation provides increased colour gamut and consistency
- StaFlat liner provides easy handling and converting properties
- Outstanding outdoor durability and performance with DOL 6460 High Gloss
- Excellent dimensional stability
- Dark grey adhesive provides extra opacity for blackout performance
- Easy removability with heat for up to 5 years with little or no adhesive residue

Description



Film: 50 micron high gloss white cast vinyl



Adhesive: Grey permanent acrylic with Easy Apply RS™ and long term removability
Removability: Up to 5 years



Backing: Two side PE coated StaFlat™ paper, 145g/m²



Outdoor life:** Up to 10 years unprinted

Application surface: Flat, simple curves, rivets and compound curves & corrugations

Conversion⁺

- | | |
|---|--|
| ☐ 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 |

⁺Always test with your combination of printer and inks prior to commercial use.

Common Applications

- Flat sided trucks
- Corrugated trucks
- Cars and vans
- Trains and light rail
- Buses
- Marine vessels
- Corporate Signage

Application

- Avery Dennison recommend a maximum total ink limit of 270% to ensure optimal performance
- Product is only warranted and recommended for use with DOL 6460 High Gloss; MPI 1105 Easy Apply RS is not compatible with DOL 1060, 1360 & 1460
- Dry application only. Do not use water and detergent or a commercial application fluid to position the graphic
- Refer to Instructional Bulletins 1.14, 1.15, 1.17 & 4.14 for printing and application instructions

Uses

Avery Dennison MPI 1105 Easy Apply RS™ is a premium gloss white opaque cast vinyl film designed for ease of application on long term outdoor signage or fleet applications where superior conformability, durability, high opacity, outdoor performance and clean and easy removal are required. The face film has been especially developed for exceptional print results on all major printer platforms using Latex, Eco-Solvent, Hard Solvent and UV-Curing inks.



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Physical characteristics

General

Calliper, face film	ISO 534	50 micron
Calliper, face film & adhesive	ISO 534	80 micron
Gloss	ISO 2813, 20°	50%
Dimensional stability	DIN 30646	0.3 mm max
Elongation	DIN 53455 (Unprinted film)	> 100%
Adhesion, 15 mins	FINAT FTM-1, Stainless steel	280 N/m
Adhesion, 24 hrs	FINAT FTM-1, Stainless steel	450 N/m
Adhesion, 1 week	FINAT FTM-1, Stainless steel	700 N/m
Removability ^^	Smooth OEM painted surfaces	Up to 5 years
Flammability		Self extinguishing
Shelf life	Stored at 22° C/50-55 % RH	2 years
Expected Durability **	Vertical exposure ^	Up to 10 years (unprinted)

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

^^ Not removable when applied to nitrocellulose paints, fresh screenprint inks, ABS, polystyrene & certain types of PVC

Thermal

Application temperature	Minimum: + 10°C
Temperature range	- 45°C to + 82°C

Chemical

Humidity resistance	120 hours exposure	No effect
Corrosion resistance	120 hours exposure	No contribution to corrosion
Water resistance	48 hour immersion	No effect
Chemical resistance	Mild acids	No effect
	Mild alkalis	No effect
Solvent resistance	Applied to aluminium	No effect exposed to:
		Oils, greases, aliphatic solvents, motor oils, heptanes, kerosene, JP-4 fuel

Note:

Materials have to be properly dried and cured 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.

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.

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.

**Expected Durability

The expected durability of Avery Dennison films are defined as the expected performance life of the Avery Dennison graphic film(s) within Zone 1 of the Avery Dennison zone system, in outdoor vertical exposure conditions.

The actual performance life will depend on a variety of factors, including selection and preparation of substrate, angle and direction of exposure, application methods, environmental conditions and cleaning/maintenance of the films. In case of films used in areas of high temperatures or humidity, high altitudes and industrially polluted areas the performance will be further reduced.

Expected Durability and Warranted Period Definitions

Expected durability is the expected period of time defined in the product data sheet, the product should, but is not warranted to, perform satisfactorily when applied in vertical exposure conditions as defined in Instructional Bulletin 1.30. The warranted period as defined in the appropriate ICS Performance Guarantee Bulletin, is the maximum period of time Avery Dennison will warrant the finished products performance in accordance with ICS Performance Guarantee Terms and Conditions 1.0, provided that the film is properly stored, converted and installed in accordance with Avery Dennison guidelines.

*Compatible with most printer and ink combinations. Test prior to use.

