

Product Data Bulletin

MPI 1005 EZ RS Cast Vinyl Film for Digital (Revision 2)

Date: 06/20/08

Description:

Avery Graphics™ MPI 1005 Easy Apply RS™ Cast Vinyl film is a premium gloss opaque vinyl designed for use in fleet and vehicle graphics as well as corporate identification applications. Avery Dennison's Easy Apply RS™ technology offers the benefits of reduced wrinkling and air entrapment inherent in the application of decals and graphics as well as repositionability and slideability for exact positioning. Avery Dennison's S-4000 permanent adhesive features clean removal at the end of the graphic life when applied to many typical commercial and fleet vehicle surfaces.

Construction:

Face Film:	2.1 mil (53 µm) high gloss, white, opaque, premium cast vinyl film
Adhesive:	S-4000 permanent, pressure sensitive adhesive with Long Term Removability and Easy Apply RS™ Technology
Release Liner:	90# StaFlat®

Product Properties:

The following information on physical and chemical characteristics is based upon tests believed to be reliable. The values are intended only as a source of information. They are given without guarantee and do not constitute a warranty. The purchaser should independently determine, prior to use, the suitability of this material for his/her specific purpose and should always pretest specific substrate prior to application. (Data represents averages and is not intended for use as a specification).

Recommend Print Method:	Solvent Inkjet. Reference IB #5.80 for recommended printer/ink combinations. NOTE: Avery Graphics recommends a maximum ink load of 250% to ensure optimal performance of the MPI products.
Premask:	Reference IB #5.50 for recommendations.
Outdoor Durability: (unprinted film)	9 years
Outdoor Durability: (printed film)	Up to 5 years when properly processed and applied (vertical exposure). Reference IB #1.30 for durability guidelines.
Minimum Surface/Ambient Air Application Temperature	45°F (7°C) Flat surfaces with / without rivets 50°F (10°C) for corrugated surfaces.
Maximum Application Temperature:	100°F (38°C)
Service Temperature Range:	-50° - 180°F (-45° - 82° C) (Reasonable range of temperatures which would be expected under normal environmental conditions).
Application Surface:	Flat, flat with rivets, rivets and corrugations. NOTE: For Rivet and Corrugated surfaces use DOL 1030.
Removability:	Clean removal for warranted life of the graphic from recommended OEM substrates. Heat and proper removal methods are required.
Chemical Resistance:	Resistant to most petroleum based oils, greases, and aliphatic solvents. Resistant to mild acids, alkalis, salts.
Shelf Life:	One year when stored at the following temperatures and humidity conditions: 68° - 77°F (20° - 25°C) and 50 ± 5% R.H.
Typical Film Caliper (w/adhesive):	3.1 mils (79 µm)



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Typical Adhesion Values:	180° Peels			
	Substrate	15 min	24hrs	1week
	Stainless Steel	1.8 lbs/in	2.1 lbs/in	4.0 lbs/in
		(315 N/m)	(367 N/m)	(700 N/m)
	NOTE: Tested per ASTM 1000. Always pretest your specific substrate prior to actual application.			
Tensile at Yield:	4.0 lb/in. to 8.0 lb/in. (0.7 kg/cm to 1.5 kg/cm)			
Elongation:	100% minimum (unprinted film)			
Dimensional Stability:	Less than 0.015 in. (0.4 mm) shrinkage determined by measurement of unprinted 36 in. ² (232 cm ²) film applied to aluminum test panel after 72 hrs. aging at 73°F (23°C) 50 ±5% R.H. followed by 48 hrs. at 150°F (65°C).			

Application Information:

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.digital.averygraphics.com).

Instructional Bulletins:	I B #
Substrate Cleaning and Preparation	#1.10
Storage, Maintenance and Cleaning of PVC Films	#1.20
Application Instructions	#4.04
Premask Recommendations	#5.50
Removal Instructions	#4.10

Conversion Information:

Thermal Die-Cutting:	290° F - 300° F (143° C to 149° C) for 0.5 - 1.0 second. Cutting temperatures and dwell times will vary with differences in die configuration and individual machines. Always test prior to production.
Steel Rule Die-Cutting:	Yes

Patent Info: May be covered by one or more patents US6,630,049, US7,060,351, US7,344,618, US7,332,205, EP1276605, EP1282472 and other US and foreign patents pending and others used under license.

Revisions have been italicized.

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