Avery *Dennison*® SC MPI 1005 Super Cast Series

LTR StaFlat™

Revision: 4 Dated: 01/27/14

Uses:

Avery Dennison® SC MPI 1005 Super Cast Series Vinyl is a premium gloss opaque vinyl designed for use in fleet marking and vehicle wrap as well as corporate identity applications. SC MPI 1005 Super Cast 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.

Face: 2.0 mil (51 microns)high gloss cast film

Adhesive: Long Term Removable Acrylic (gray)

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

Durability: Up to 10 years (unprinted)

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 *(www.avery-us.color-base.com)*

Conversion:

- Thermal Die-Cutting (90# smooth only)
- Flat Bed Sign-Cut
- Drum Roller Sign-Cut
- Steel Rule Die-Cutting
- Screen Printing
- Solvent based inkjet
- Mild/Eco Solvent inkjet
- UV inkjet(flat applications only)
- Latex Inkjet

Common Applications:

- Vehicle
- Marine/ Watercraft (90# Smooth or Easy Apply™ only)
- Fleet
- Wall Murals (90# Smooth Only)
- POP/ Tradeshow
- Outdoor Signage
- Floor Graphics

Product Data Sheet

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Physical Characteristics:

Property		Value
Caliper, face		2.0 mil (51µm)
Caliper, adhesive		1.0mil (25 µm)
Dimensional stability		<0.015"(0.4mm) Note: Ink loads in excess of 250% may cause increased shrinkage 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
Adhesion:	**90# Smooth**	
	15 min	2.7 lbs/in (473 N/m)
	24 hr	3.5 lbs/in (613 N/m)
	1 week	4.4 lbs/in (770 N/m)
	Easy Apply	
	15 min	1.8 lbs/in (315 N/m)
	24 hr	2.1 lbs/in (367 N/m)
	1 week	4.0 lbs/in (700 N/m)
	Easy Apply RS	
	15 min	1.8 lbs/in (315 N/m)
	24 hr	2.1 lbs/in (367 N/m)
	1 week	4.0 lbs/in (700 N/m)
Flammability		Self Extinguishing
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	Unprinted – 10 years Printed – Up to 5 years
Min. Application Temperature		45° F (7° C) Flat & Flat w/Rivets 50° F (10° C) Corrugations
Service Temperature		-50° - 180°F (-45° - 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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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 chemicals within the period stated on the respective Product Data Sheet and might leave twenty percent (30%) 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*
- *Stainless Steel*

Avery Dennison makes no guarantee for:

- *Paint staining. Avery Dennison does not warrant vehicle paint staining that may be visible after removing an inkjet printed graphic with an overlaminate. To reduce the risk of staining, always remove the graphic by the end of the warranty period.*
- *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.*

Limitation of End 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)*
- *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*

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.

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.

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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.

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.na.averygraphics.com).

Document Title	Reference Number
Substrate Cleaning and Preparation	Instructional Bulletin #1.10
Storage, Maintenance, and Cleaning of PVC Films	Instructional Bulletin #1.20
Application of Avery Dennison® SuperCast Films on Irregular Substrates	Instructional Bulletin #4.07
Multi Purpose Ink Jet OEM Qualification Matrix, Durability Reference, & Troubleshooting Guide	Instructional Bulletin #5.80
Premask Recommendations	Instructional Bulletin #5.50
Removal Instructions	Instructional Bulletin #4.10

Revisions are italicized

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.

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