Avery *Dennison*[®] **PC** MPI 3320 Matte Series

MPI 3320 / 3321 / 3322 / 3323

Clear Perm/ Clear Removable / Gray Removable / Gray Perm Kraft

Revision: 2 Dated: 12/02/13

Uses:

Avery Dennison® PC MPI 3320 Matte Series are tough, scuff-resistant, flexible white promotional calendered vinyl films that deliver consistent print images at an exceptional value. Avery *Dennison®* PC MPI 3320 and 3323 Matte feature a clear and gray permanent adhesive designed for short to medium term promotional graphics while the Avery Dennison® PC MPI 3321 and 3322 offer a clear and gray adhesive for promotional applications requiring removable adhesive performance. These films are well suited for applications such as Point-of-Purchase. Product Identification Labels, as well as Outdoor and General Signage.



Face: 3.4 mil (86 microns)Matte



Adhesive: Acrylic MPI 3320 - Permanent (clear) MPI 3321 - Removable (clear) MPI 3322 - Removable (gray) MPI 3323 - Permanent (gray)



Liner: Clay-Coated Kraft



Durability: Up to 4years (unprinted)

Application Surfaces:

Flat, simple curves (restricted to non-spill areas)

Features:

- Consistent Printability
- Excellent image clarity and color pop
- Easy to handle liner for trouble free converting
- ICC profiles available on the Avery Dennison's website (www.iccprofiles.averygraphics.com)

Conversion:

- Thermal Die-Cutting
- Flat Bed Sign-Cut
- Drum Roller Sign-Cut
- Steel Rule Die-Cutting
- Solvent based inkjet
- Mild/Eco Solvent inkjet
- UV inkjet
- Latex Inkjet

Note: Product is not recommended for use on drum digital printers or sheet-fed conversion.

Common Applications:

POP/ Tradeshow

Wall Murals

- Outdoor Signage
- Floor Graphics

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Physical Characteristics:

Property	aracteristic	Value
Caliper, face		3.4 mil (86µm)
Caliper, adhesive		1.0mil (25 μm)
Dimensional stability		<0.030"(0.762 mm)
Stability		Note: Ink loads in excess of 250% may cause increased shrinkage of the printed film.
Tensile @16%		6.0 lb/in (1.1 kg/cm)
Tensile @ Break		12.2 lb/in (2.3 kg/cm)
Elongation		Min 150%
Gloss	Hunter Gloss @ 60	55 ±10
Adhesion: 15 min	Permanent Removable	2.5 lb/in (438 N/m) 1.0-2.0 lb/in (175-350 N/m)
24 hr	Permanent Removable	3.9 lb/in (683 N/m) 1.5-3.0 lb/in (263-525 N/m)
Removability	MPI 3321 MPI 3322	1 year from most substrates.
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 – 4 years Printed – Up to 3 years
Min. Application Temperature		50°F (10°C)
Service Temperature		-40° - 180°F (-40° - 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:

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

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.

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.

Revisions are italicized

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