

Avery Dennison® MPI 3960 Plus

Gloss Transparent Short Life Promotional Vinyl Permanent

Features:

- Hybrid transparent film suitable for both printing and protective overlamine applications
- Exceptional value for money for short term promotional graphics providing excellent printability
- Excellent handling across all major print platforms
- Good outdoor durability and performance for short life graphics
- Excellent gloss finish for superior appearance
- Good dimensional stability after application
- Excellent adhesion and easy application to most wide range of substrates
- Additional benefit of stocking one product for both applications
- Provides good UV and weathering resistance to printed graphics
- Provides some abrasion and chemical resistance to graphics

Description:



Film: 85 micron gloss transparent monomeric calendered vinyl



Adhesive: Clear permanent acrylic



Backing: One side PE coated 140g/m²



Outdoor life:** Up to 1 years (unprinted)

Application surface: Flat, simple curves

Conversion

- | | |
|--|--|
| <input type="radio"/> Flat bed cutters | <input checked="" type="radio"/> Cold overlaminating |
| <input type="radio"/> Friction fed cutters | <input type="radio"/> Electrostatic printing |
| <input checked="" type="radio"/> Die cutting | <input checked="" type="radio"/> Latex inkjet** |
| <input type="radio"/> Thermal transfer | <input checked="" type="radio"/> Eco solvent inkjet |
| <input type="radio"/> Screen printing* | <input checked="" type="radio"/> Solvent inkjet |
| <input type="radio"/> Offset printing | <input checked="" type="radio"/> UV curable inkjet |

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

** Below 3 layers

Common Applications:

- Billboards
- Transit advertising[^]
- Real estate signs
- Point of purchase[^]
- Outdoor advertising[^]
- Indoor advertising[^]
- Exhibition graphics[^]
- Windows graphics

[^] Always test with your substrate for painted wall

Uses

Avery Dennison MPI 3960 Plus is a gloss transparent promotional vinyl film designed for use in a wide range of short-term promotional applications where good outdoor durability and value for money is required. The face film has been especially developed for exceptional print results on all major printer platforms, and It is applicable to use as a protective overlamine film pairing with MPI3900 plus series.

General

Calliper, face film	ISO 534	85 micron
Calliper, face film & adhesive	ISO 534	110 micron
Gloss	ISO 2813	Gloss 20° >70GU
Dimensional stability	DIN 30646	1.2 mm max
Adhesion, initial [#]	FINAT FTM-1, Stainless steel	>240 N/m
Adhesion, 24 hour [#]	FINAT FTM-1, Stainless steel	>320 N/m
Flammability		Self extinguishing
Shelf life	Stored at 22° C/50% RH	1 years
Expected Durability **	Vertical exposure [^]	Up to 1 years (unprinted)

[#] Off machine adhesion

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

Thermal

Application temperature	Minimum: + 10°C
Temperature range	-40°C to +80°C

Chemical

Resistant to most petroleum based oils, greases and aliphatic solvents
Resistant to most mild acids, alkalies, and salts

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.

Testing 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.

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 unless of the Avery Dennison zone system unless specified, 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.

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.