

Technical specification sheet

Ball & Doggett

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Product: Avery Dennison® MPI 3900 Value Film

Gloss White Short Life Promotional Film Permanent



Graphics Solutions

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

Country of Origin: USA

Technical specifications:

Features

- Exceptional value for money for short life promotional graphics
- Very good printability on eco-solvent, solvent, latex and UV curable printers
- Good dimensional stability during conversion and application
- Good outdoor durability and performance for short life graphics
- Gloss finish for vibrant colours
- Very good low temperature adhesion performance
- Versatile permanent adhesive with excellent adhesion to most substrates and removable with heat and/or chemicals

Description



Film: 95 micron gloss white monomeric calendered vinyl



Adhesive: Clear permanent acrylic



Backing: One side PE coated paper, 140 g/m²



Outdoor Durability:** Up to 1 year

Conversion[^]

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

[^]Always test with your combination of printer and inks prior to commercial use.

Uses

Avery Dennison® MPI 3900 Value Film Gloss Permanent is a gloss white short life promotional vinyl film designed for use in a wide range of short term promotional digital printed applications where excellent adhesion, good outdoor durability and value for money is required.

Common Applications

- Point of sale graphics
- Outdoor advertising
- Exhibition graphics
- Window graphics
- Real estate signage
- Vehicle advertising
- Promotional signage
- Stickers and labels

General

Caliper, face film	ISO 534	95 micron
Caliper, face film & adhesive	ISO 534	115 micron
Gloss, 20°	DIN 67530	40
Opacity	ISO 2471	95%
Dimensional stability	DIN 30646	0.5 mm max
Tensile strength	ISO 1184	22 Mpa (MD) 18 Mpa (CD)
Face film elongation	ISO 1184	175% (MD) 175% (CD)
Adhesion, initial	FINAT FTM-1, stainless steel	390 N/m
Adhesion, ultimate	FINAT FTM-1, stainless steel	550 N/m
Flammability		Self extinguishing
Shelf life	Stored at 22° C/50-55 % RH	1 year
Durability **	Vertical exposure	up to 1 year (unprinted)

Thermal

Application temperature	Minimum: +10°C
Temperature range	- 20°C to + 80°C

Chemical

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

Note:

Solvent and Eco solvent digital printed films must 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.

Important

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All technical data is subject to change without prior notice.

Warranty

Avery® 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® materials are sold subject to the above conditions, being part of our standard conditions of sale, a copy of which is available on request.

**Durability

Durability is based on exposure conditions in the Asia Pacific region. Actual performance life will depend on substrate preparation, exposure conditions and maintenance of the marking. For instance, in the case of signs facing north in the southern hemisphere or south in the northern hemisphere; in areas of long high temperature exposure such as northern Australia; in industrially polluted areas or high altitudes, exterior performance will be decreased.

+Compatible with most media and ink combinations. Test prior to use.

***Information unavailable at time of printing.

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.

Product: Avery Dennison® MPI 3901 Value Film

Gloss White Short Life Promotional Film Removable



Graphics Solutions

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

Technical specifications:

Features

- Exceptional value for money for short life promotional graphics
- Very good printability on eco-solvent, solvent, latex and UV curable printers
- Good dimensional stability during conversion and application
- Good outdoor durability and performance for short life graphics
- Gloss finish for vibrant colours
- Very good low temperature adhesion performance
- Easy removability with heat for up to 1 year with little or no adhesive residue

Description



Film: 95 micron gloss white monomeric calendered vinyl



Adhesive: Clear removable acrylic



Backing: One side PE coated paper, 140 g/m²



Outdoor Durability:** Up to 1 year

Conversion[^]

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

[^]Always test with your combination of printer and inks prior to commercial use.

Uses

Avery Dennison® MPI 3901 Value Film Gloss Removable is a gloss white short life promotional vinyl film designed for use in a wide range of short term promotional digital printed applications where removability, good outdoor durability and value for money is required.

Common Applications

- Point of sale graphics
- Outdoor advertising
- Exhibition graphics
- Window graphics
- Real estate signage
- Vehicle advertising
- Promotional signage
- Stickers and labels

General

Caliper, face film	ISO 534	95 micron
Caliper, face film & adhesive	ISO 534	115 micron
Gloss, 20°	DIN 67530	40
Opacity	ISO 2471	95%
Dimensional stability	DIN 30646	0.5 mm max
Tensile strength	ISO 1184	22 Mpa (MD) 18 Mpa (CD)
Face film elongation	ISO 1184	175% (MD) 175% (CD)
Adhesion, initial	FINAT FTM-1, stainless steel	280 N/m
Adhesion, ultimate	FINAT FTM-1, stainless steel	380 N/m
Removability [^]	Smooth OEM painted surfaces	Up to 1 year
Flammability		Self extinguishing
Shelf life	Stored at 22° C/50-55 % RH	1 year
Durability **	Vertical exposure	up to 1 year (unprinted)

[^] Not removable when applied to nitrocellulose paints, fresh screen print inks, ABS, polystyrene & certain types of PVC

Thermal

Application temperature	Minimum: +10°C
Temperature range	- 20°C to + 80°C

Chemical

Resistant to most petroleum based oils, greases and aliphatic solvents

Resistant to most mild acids, alkalies, and salts

Note:

Solvent and Eco solvent digital printed films must 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.

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.

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Warranty

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**Durability

Durability is based on exposure conditions in the Asia Pacific region. Actual performance life will depend on substrate preparation, exposure conditions and maintenance of the marking. For instance, in the case of signs facing north in the southern hemisphere or south in the northern hemisphere; in areas of long high temperature exposure such as northern Australia; in industrially polluted areas or high altitudes, exterior performance will be decreased.

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

***Information unavailable at time of printing.

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.

Product: Avery Dennison® MPI 3902 Value Film

Gloss White Short Life Promotional Film Grey Removable



Graphics Solutions

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

Technical specifications:

Features

- Exceptional value for money for short life promotional graphics
- Very good printability on eco-solvent, solvent, latex and UV curable printers
- Good dimensional stability during conversion and application
- Good outdoor durability and performance for short life graphics
- Gloss finish for vibrant colours
- Very good low temperature adhesion performance
- Grey adhesive provides blackout performance
- Easy removability with heat for up to 1 year with little or no adhesive residue

Description



Film: 95 micron gloss white monomeric calendered vinyl



Adhesive: Grey removable acrylic



Backing: One side PE coated paper, 140 g/m²



Outdoor Durability:** Up to 1 year

Conversion[^]

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

[^]Always test with your combination of printer and inks prior to commercial use.

Uses

Avery Dennison® MPI 3902 Value Film Gloss Grey Removable is a gloss white short life promotional vinyl film designed for use in a wide range of short term promotional digital printed applications where removability, blackout performance, good outdoor durability and value for money is required.

Common Applications

- Point of sale graphics
- Outdoor advertising
- Exhibition graphics
- Window graphics
- Real estate signage
- Vehicle advertising
- Promotional signage
- Stickers and labels

General

Caliper, face film	ISO 534	95 micron
Caliper, face film & adhesive	ISO 534	115 micron
Gloss, 20°	DIN 67530	40
Opacity	ISO 2471	99%
Dimensional stability	DIN 30646	0.5 mm max
Tensile strength	ISO 1184	22 Mpa (MD) 18 Mpa (CD)
Face film elongation	ISO 1184	175% (MD) 175% (CD)
Adhesion, initial	FINAT FTM-1, stainless steel	310 N/m
Adhesion, ultimate	FINAT FTM-1, stainless steel	460 N/m
Removability [^]	Smooth OEM painted surfaces	Up to 1 year
Flammability		Self extinguishing
Shelf life	Stored at 22° C/50-55 % RH	1 year
Durability **	Vertical exposure	up to 1 year (unprinted)

[^] Not removable when applied to nitrocellulose paints, fresh screen print inks, ABS, polystyrene & certain types of PVC

Thermal

Application temperature	Minimum: +10°C
Temperature range	- 20°C to + 80°C

Chemical

Resistant to most petroleum based oils, greases and aliphatic solvents

Resistant to most mild acids, alkalies, and salts

Note:

Solvent and Eco solvent digital printed films must 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.

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**Durability

Durability is based on exposure conditions in the Asia Pacific region. Actual performance life will depend on substrate preparation, exposure conditions and maintenance of the marking. For instance, in the case of signs facing north in the southern hemisphere or south in the northern hemisphere; in areas of long high temperature exposure such as northern Australia; in industrially polluted areas or high altitudes, exterior performance will be decreased.

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

***Information unavailable at time of printing.

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.

Product: Avery Dennison® MPI 3903 Value Film

Gloss White Short Life Promotional Film Grey Permanent



Graphics Solutions

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

Technical specifications:

Features

- Exceptional value for money for short life promotional graphics
- Very good printability on eco-solvent, solvent, latex and UV curable printers
- Good dimensional stability during conversion and application
- Good outdoor durability and performance for short life graphics
- Gloss finish for vibrant colours
- Very good low temperature adhesion performance
- Grey adhesive provides blackout performance
- Versatile permanent adhesive with excellent adhesion to most substrates and removable with heat and/or chemicals

Description



Film: 95 micron gloss white monomeric calendered vinyl



Adhesive: Grey permanent acrylic



Backing: One side PE coated paper, 140 g/m²



Outdoor Durability:** Up to 1 year

Conversion[^]

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

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Common Applications

- Point of sale graphics
- Outdoor advertising
- Exhibition graphics
- Window graphics
- Real estate signage
- Promotional signage
- Stickers and labels

Uses

Avery Dennison® MPI 3903 Value Film Gloss Grey Permanent is a gloss white short life promotional vinyl film designed for use in a wide range of short term promotional digital printed applications where excellent adhesion, blackout performance, good outdoor durability and value for money is required.

General

Caliper, face film	ISO 534	95 micron
Caliper, face film & adhesive	ISO 534	115 micron
Gloss, 20°	DIN 67530	40
Opacity	ISO 2471	99%
Dimensional stability	DIN 30646	0.5 mm max
Tensile strength	ISO 1184	22 Mpa (MD) 18 Mpa (CD)
Face film elongation	ISO 1184	175% (MD) 175% (CD)
Adhesion, initial	FINAT FTM-1, stainless steel	370 N/m
Adhesion, ultimate	FINAT FTM-1, stainless steel	510 N/m
Flammability		Self extinguishing
Shelf life	Stored at 22° C/50-55 % RH	1 year
Durability **	Vertical exposure	up to 1 year (unprinted)

Thermal

Application temperature	Minimum: +10°C
Temperature range	- 20°C to + 80°C

Chemical

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

Note:

Solvent and Eco solvent digital printed films must 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.

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**Durability

Durability is based on exposure conditions in the Asia Pacific region. Actual performance life will depend on substrate preparation, exposure conditions and maintenance of the marking. For instance, in the case of signs facing north in the southern hemisphere or south in the northern hemisphere; in areas of long high temperature exposure such as northern Australia; in industrially polluted areas or high altitudes, exterior performance will be decreased.

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

***Information unavailable at time of printing.

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.