



## Recommendations for conversion, application and use of Avery® Floor Marking™.

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### Description

Avery Floor Marking consists of a self-adhesive printable base film and an overlamination film. The base film (Avery Floor Print White/Transparent) can be printed with a wide variety of conventional screen inks, printed by a wide range of Thermal and Piezo Inkjet printers, or electrostatically printed images can be transferred on it. After printing, the basefilm is overlaminated with a transparent overlamination film (Avery DOL5900 or DOL6000 or DOL6100)

The Avery Dennison products mentioned below;

- are suitable and can be used safely on floors mentioned in this document,
- will stick on recommended floors,
- can be removed easily after use, within their functional life (see below)

Avery Dennison is not liable for any damage resulting from the use and application of Avery Floor Marking.

### Products

#### Avery Floor Marking White 60

- **Avery Floor Print White** 80 micron white calendered vinyl film, removable adhesive, paper liner.
- **Avery DOL 5900**: 100 micron transparent, matt textured vinyl overlamination film. Maximum functional life: 2 months.

#### Avery Floor Marking White/Transparent 90

- **Avery Floor Print White/Transparent**: 75 micron white/transparent calendered vinyl film, removable adhesive, paper liner.
- **Avery DOL 6000**: 125 micron transparent, matt textured vinyl overlamination film. Maximum functional life: 3 months.

#### Avery Floor Marking White/Transparent 180

- **Avery Floor Print White/Transparent**: 75 micron white/transparent calendered vinyl film, removable adhesive, paper liner.
- **Avery DOL 6100**: 220 micron transparent, matt textured vinyl overlamination film. Maximum functional life: 6 months.

#### Avery IPM 4401 for Floormarking Graphics

- **Avery IPM 4401**: 86 micron white calendered vinyl film, removable adhesive, paper liner.
- **Avery DOL 6100**: 220 micron transparent, matt textured vinyl overlamination film. Maximum functional life: 6 months.

#### Avery MPI / MPI-A 2002 for Floor Marking Graphics

- **Avery MPI/MPI-A 2002**: 80 micron white calendered vinyl film, removable adhesive, two sides polyethylene coated liner.
- **Avery DOL 6100**: 220 micron transparent, matt textured vinyl overlamination film. Maximum functional life: 6 months.



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The choice of one of the Avery Floor Marking products depends on the requirements for actual use.

### Use

Avery Floor Marking has been developed for full colour graphics on a variety of floor surfaces, such as in shopping malls, train and metro stations, supermarkets etc..

### Durability

The function life of Avery Floor Marking is:

- 2 months for Avery Floor Marking White/ **60**
- 3 months for Avery Floor Marking White/Transparent **90**
- 6 months for Avery Floor Marking White/Transparent **180**
- 6 months for Avery **IPM 4401** for Floor Marking Graphics
- 6 months for Avery **MPI/MPI-A 2002** for Floor Marking Graphics

These data are based upon experience and do not present a warranty.

These data are applicable when using recommended Avery films and toner/inks as stated in "Print recommendations", attached to this Technical Bulletin, and proper processing and application as described hereafter.

The functional life will be influenced by maintenance of the decal and exposure to e.g. (sun)light, temperature and people. Avery Floor Marking is likely to be damaged by vehicles such as e.g. forklifts. Damage caused by vehicles is excluded from any guarantee.

### Conversion

It is recommended to round off the corners of Avery Floorprint graphics by **a radius of at least 5 mm**: sharp corners make graphics more vulnerable to damage or delamination.

Avery Floor Print White/Transparent can be printed with good quality screenprinting inks. Detailed ink recommendations for Avery Floor Print are on the attached "Print recommendations" sheet.

Allow the printed Floor Print to dry for at least 1 hour prior to overlamination.

Electrostatically printed images can also be transferred onto Avery Floor Print. Please see attached "recommendations on transfer paper and toners".

Avery DOL 6000 and DOL 6100 and DOL 5900 can be laminated to the printed Avery Floor Print film on a laminator at 25-30 °C. Lamination can be done with moderate pressure (50-100 psi) and speed (< 2.5 m/min.) and low web tension. Lamination by hand or roller is not recommended.

We do not recommend the use of varnishes to replace the Avery DOL films since varnishes do not have sufficient wear resistance and also quickly loose anti-slip properties.

The laminates of Avery Floor Print and Avery DOL 5900/6000/6100, further called Avery Floor Marking, can be cut on flatbed plotters, using standard settings as for e.g. Avery FasCal 600 SF and a sharp, 45° angled knife. We recommend to strip the waste quickly after cutting.

Designs for cutting that include sharp angled or fine details should be avoided.

To avoid delamination Avery Floor Marking should be laying flat for at least 1 hour prior to further processing. For transportation it is recommended to prepare rolls of Avery Floor Marking with diameter of 6 cm or more: the DOL film shall be wound outside.



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### Application

Avery Floor Marking can be used on most floors. It is strongly recommended to always check floors prior to application.

Application on the following floors is not recommended and are excluded from any guarantee or warranty:

- Waxy, rough or porous ceramic tiles or wooden floors
- Textile mats and carpets
- Rubber matting
- Soft PVC matting
- Marble - (slight dis-)colouration of the marble might occur as a result of its porous composition.
- Very irregular floor surfaces

Application temperature: +10°C to +30 °C

### Floor cleaning:

- All floors have to be cleaned and degreased prior to application of Avery Floor Marking. First clean the floor in a conventional way as prescribed by the floor detergent manufacturer. Do not use chemically aggressive detergents. Dry the floor with a lint free cloth.
- Then degrease the floor area that has to be covered, using degreasing agents (IPA, White Spirit or similar) and again a lint free cloth. Check again prior to application that there are no dust or dirt particles on the area to be covered.

### Application Procedure:

Determine the exact position where the graphic will be applied. Make sure that the edges of Avery Floor Marking **never** start at a tile edge or joint or on a parquet floor joint. Put the laminated graphic upside down and remove the liner (partial removal or the presence of liner backslits will facilitate positioning and application).

The standard procedures for decal application can be followed.

- Peel the backing paper away from the film + overlamine construction and not the film from the backing paper.
- Apply the decal with a hard plastic squeegee with firm, overlapping strokes. After completion of the application, check and resqueegee the edges of the decal.
- **When the final graphic is made out of more than one sheet of Avery Floor Marking, it is recommended to apply these side by side without a gap.**
- Allow at least:
  - 30 minutes for the adhesion to build up sufficiently prior to use the decal as a walkway: essential here is the thorough re-squeegeeing of the decal edges.
  - 4 to 6 hours for the adhesive to "settle down" before the decal can be exposed to cleaning, polishing etc.

### Application Tape

Due to the relative thickness of the final decal, the use of application tape is not required. If however the use is preferred by the applicator, Application Tape PM62 should be used.



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### Removal after use

Avery Floor Marking can easily be removed, without adhesive residues, by starting the removal at a corner and then continue the removal at 90° angle. Dirty contour edges on the floor may appear after decal removal: these can be removed through the normal cleaning procedures for the floor to which the decal was applied.

If new decals have to be applied, the above procedure has to be repeated from the very beginning.

***In some cases colour differences between the floor covered by Avery Floor Marking and the surrounding area could occur as result of further discoloration of the surrounding floor area..***

### Note

Avery warranties are only applicable when Avery Floor Print White/Transparent and Avery DOL 6000/DOL 6100 or have been used and processed and applied according to above instructions, including the use of toner/inks as stated in "Print recommendations", attached to this Technical Bulletin.

All statements, technical information, technical data and recommendations concerning the goods sold or samples provided by Avery Dennison are believed to be reliable, but do not constitute a guarantee or warranty. All goods are sold and samples of all products provided with the understanding that the purchaser has independently determined, prior to use, that the goods are suitable for the purpose the purchaser intends to use the goods for.

Composition of Avery Floor Marking combinations Films/DOL and the content of all Avery Technical Bulletins is subject to change without prior notice.



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### Print recommendations for Avery Floor Marking

#### Ink recommendation for screen printing of Avery Floor Marking.

Printcolor (CH):	Solvent ink If necessary	: Serie 388 : Clear varnish 85-8700
Coates Screen (D): (= Wiederhold)	Solvent inks UV inks	: HG, J, CP and SG series : UVN and UVP
Coates Screen (UK)	Solvent inks	: Vynafresh 46-00 Vynaglaze 47-00 Flexijet 48-00
Marabu (D):	Solvent inks	: Maragloss GO Libraspeed LIS Marastar SR Marapol PY: PUH 10:1 ( = 2-Pack!) Libragloss LIG
Pröll (D): Waterbased inks	: Aqua-Jet FGL	
	UV inks	: AquaCell 364 : NoriCure PL 550 : NoriCure ST 352
	Solvent inks	: Thermo-Jet 417 : Jet 200 429 : Noriprint PS 312 : Noristar PG 836 : PUR-ZK 631
Visprox (NL):	Solvent inks	: GP 5500 : TCI 8700 (2-Pack!) : VL 8000 : V 2000 : Viprosign 9400
	Waterbased ink UV inks	: Hydrocryl 9200 : Multi 7600 : Flex 6500 : Uvipol 9700
SERICOL:	Solvent inks	: Mattplast MG and MH : Plastijet XG : Polyplast PY
	UV inks	: Uviplast Omniplus UV : Uviplast Hiflex ES : Uvispeed Multiflash UZ



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### **Recommendations for electrostatic printing and transfer on Avery Floor Marking.**

The following combinations of the electrostatic printable paper and liquid toner are recommended:

#### Dry image transfer papers :

Rexam EDXPIC075-R series, Xerox 23R870, 3M 8603 wear coat paper<sup>1</sup>.

#### Toners :

Hi-Brite UV toner, Xerox Turbo ink (series III), STC Weather Durable toner, 3M toner<sup>1</sup>.

It is not recommended to use other transfer papers and toners without consultation of Avery Dennison staff.

### **Recommendations for Thermal Inkjet printing and transfer on Avery Floor Marking.**

#### **Avery Floor Marking IPM 4401**

When a Thermal Inkjet printer is used for printing on the Avery Floor Marking IPM 4401 is can use waterbased inks. When the application is at a place where the sunlight directly shines on the Floor Marking, we advise to use pigmented Inks.

#### Examples:

- Hewlett Packard UV Pigmented Inks
- Encad GO or GX Inks
- ColorSpan UV Pigmented Inks
- Océ Pigmented Inks

### **Recommendations for Solvent Inkjet printing on Avery Floor Marking.**

#### **Avery Floor Marking MPI/MPI-A 2002**

Floormarking MPI 2002 can be printed with a variety of solvent inkjet printers, such as the NUR Salsa or Nur Fresco , the Scitex Grandjet or XL Jet or similar wide format machines. For compatibility please check with Technical Bulletin 5.15.

MPI-A 2002 has been designed to be used on the Océ Arizona 180 machine, which requires reverse winding and special notched cores.

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<sup>1</sup> Recommended but not warranted

