Avery Dennison® Instructional Bulletin 1.1
Converting and Applying Floor Graphics

Due to the unique nature of the Floor graphics, particular attention needs to be paid to the application surface, how the finished graphic is applied to the floor, and maintenance of the floor graphic.

NOTE: Failure to follow the guidelines set forth by this Instructional Bulletin, may void parts or all of the Avery Dennison Floor Graphics Warranty.

Recommended Films
See attached Table1, for base and overlaminate Graphic films that are recommended and approved for floor graphics internal applications:

Avery Dennison Floor Graphics System Table 1.

Once you have selected your printing or cutting method and you know where the floor graphic will be located, all you need to do is to select the graphic film and overlaminate combination from the Avery Graphics System that meets your needs.

Internal Application Recommendations

Technology	Graphic Film (Removable)	Durability (up to)	Overlaminate Zone 1	Overlaminate Zone 2	Australian and New Zealand Standard AS/NZS 4586:2004 – Slip resistance classification.
Digital Inkjet Printing	Avery MPI 3002 PP Gloss White Avery MPI 8112 Gloss White Avery MPI 3041 PP Gloss Clear	60 Days	DOL 3100 Matte	DOL 6100 Floor Graphic	Meets or exceeds the AS/NZS 4586:2004 Standard
	Avery MPI 3002 PP Gloss White Avery MPI 8112 Gloss White Avery MPI 3041 PP Gloss Clear	90 Days	DOL 6000 Floor Graphic	DOL 6100 Floor Graphic	Meets or exceeds the AS/NZS 4586:2004 Standard
	Avery MPI 3002 PP Gloss White Avery MPI 8112 Gloss White Avery MPI 3041 PP Gloss Clear	180 Days	DOL 6100 Floor Graphic	DOL 6100 Floor Graphic	Meets or exceeds the AS/NZS 4586:2004 Standard
Screen Printing	Serilux 72100 Gloss White Serilux 72101 Matt White Serilux 70100 Gloss Clear	60 Days	DOL 3100 Matte	DOL 6100 Floor Graphic	Meets or exceeds the AS/NZS 4586:2004 Standard
	Serilux 72100 Gloss White Serilux 72101 Matt White Serilux 70100 Gloss Clear	90 Days	DOL 6000 Floor Graphic	DOL 6100 Floor Graphic	Meets or exceeds the AS/NZS 4586:2004 Standard
	Serilux 72100 Gloss White Serilux 72101 Matt White Serilux 70100 Gloss Clear	180 Days	DOL 6100 Floor Graphic	DOL 6100 Floor Graphic	Meets or exceeds the AS/NZS 4586:2004 Standard
Computer Cut	Avery 500 EF Series Matte	60 Days	DOL 3100 Matte	DOL 6100 Floor Graphic	Meets or exceeds the AS/NZS 4586:2004 Standard
	Avery 500 EF Series Matte	90 Days	DOL 6000 Floor Graphic	DOL 6100 Floor Graphic	Meets or exceeds the AS/NZS 4586:2004 Standard
	Avery 500 EF Series Matte	180 Days	DOL 6100 Floor Graphic	DOL 6100 Floor Graphic	Meets or exceeds the AS/NZS 4586:2004 Standard

Zone 1
Avery DOL 3100 Matte and DOL 6000 Floor Graphic overlaminates meets or exceeds the minimum AS/NZS 4586:2004 requirements for use in dry areas with surface angle of ≤2 degrees, or where occasional water or spillages may occur. It is expected that an accidental spillage in the "dry area" will be attended to very quickly. Examples of where these films may be used are:

- Dry areas of entry foyers at hotels, offices or public buildings
- Within shopping centres (excluding food courts)
- Shops inside shopping centres (newsagents, clothing stores, etc.)
- Supermarket aisles (except fresh food areas)

Zone 2
Avery DOL 6100 Floor Graphic overlaminate meets or exceeds the minimum AS/NZS 4586:2004 requirements for floors where occasional water is expected. Examples of where this film may be used are:

- Entry foyers of hotels, offices and public buildings
- Shopping centres including food courts
- Shops with external entrances
- Fast food outlets, food service areas
- Supermarket fresh fruit and vegetable, dairy and deli areas

AVERY DENNISON

Selection guidelines for recommended overlaminate films

After selection of recommenced Base floor Graphic film (Digital, screen or computer cut), then a selection can to be made on the recommended overlaminate films shown.

As the recommended floor graphics overlaminate films noted in Table 1, meet the requirements under AS/NZS 4586:2004 Standard Slip resistance classification of new pedestrian surfaces, their end use has been described under Zone 1 and Zone 2 system. Further recommended overlaminate durability also been listed, so use Table 1 and match the recommended overlaminate to the required Zone 1 or Zone 2 end use, and then select the required durability: 60, 90 or 180 days.

Processing Procedures

Printing
Floor graphics base films can be printed by most digital Solvent, Latex and UV cured inks, plus screen inks system, depending on the material used. Please refer to following instructional bulletins:
- Instructional Bulletin #4.14 Printing and Finishing or solvent inkjet graphics
- Instructional Bulletin #3.03 Guidelines for Screen printing

Laminating Conditions

After the desired graphic image is printed on one of the recommended base films, it is necessary to overlaminate the image with recommended overlaminate film as shown in Table 1.
- For Ink jet images refer to Technical Bulletin #4.06 for overlamination instructions (the overlaminate on ink jet prints must overlap the image by at least 10mm).
- The use of varnishes or clear coats is not recommended and should not be used in lieu of the specially designed overlaminate, as varnishes do not have sufficient wear resistance and quickly reduce in anti-slip properties they may possess.

Application of Floor Graphic

Placement of the Graphic
- For safety, and to maintain the integrity of the graphic, it is important to place the graphic in a moderate traffic area, away from main doorways.
- As with any floor surface, the Floor graphic will become slippery when wet. As a result, it is advised to keep the graphic away from areas where it can become wet from rain or snow. If applied in a warehouse environment, forklifts and other heavy equipment can compromise the integrity of the graphic.
- The Avery Dennison Floor Marking system is suitable for use in warehouses provided the graphic is not applied to high traffic areas of heavy equipment.
- The floor surface to which the graphic is applied should be well secured, level, and free from cracks, chips, and missing and/or loose tiles or grout. The floor surface should also be free of silicone, as the presence of silicone will reduce the adhesion of the graphic to the floor surface.

Preparation of the Floor Surface
NOTE: For additional substrate preparation, please see Instructional Bulletin #1.01.

- Once the location of the graphic has been determined, it is necessary to prepare the surface before applying the graphic. Proper preparation of the substrate is critical to the durability of the product. The application surface needs to be clean, smooth, and dry.
- Remove all dirt and grime with a commercial detergent solution and water. Make sure that the surface is thoroughly cleaned and that no residue remains. It is important to clean not only the area to which the graphic will be applied, but also a aditional 20-25 cm on all edges.

NOTE: Detergents that contain enzymes and soaps should not be used.

- Wipe the floor dry with a lint-free paper towel.

Final Surface Cleaning and Preparation
- After following the cleaning instructions above, the substrate should be thoroughly cleaned with Avery Dennison Surface Cleaner.
- Spray onto the surface that is to be prepared and allow to dwell, remove using a clean, soft, lint-free cloth, remembering to rotate the cloth for each new area you clean.

or alternatively
- IPA (isopropyl alcohol) can be used, by wiping the surface with a cloth soaked in IPA.
- After thoroughly wiping with IPA, dry wipe the surface completely using a clean, soft, lint-free cloth before solvent evaporates.

NOTE: Prior to installation of floor graphics, read and follow all manufacturers' instructions relevant to the chemical preparation of the floor surface. The labels and Material Safety Data Sheets (MSDS) should be read before using any cleaning solution. Be sure to follow all manufacturers' guidelines when using floor-cleaning equipment.

Application of the Avery Dennison Floor Graphics

NOTE: For additional application instructions please refer to Instructional Bulletin #1.8.

Locate the exact position on the floor where the graphic will be installed. Make sure that edges of the graphic are not along a tile edge, grout, or join in the floor. See Figures 1 and 2.
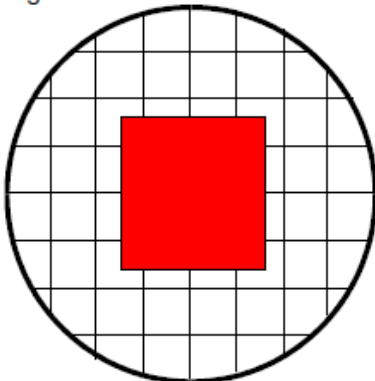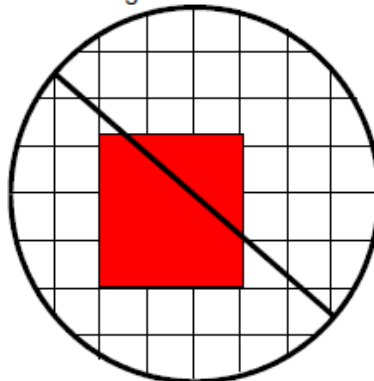
Figure 1.

Figure 2.

- Once the location of the graphic is aligned as shown in Fig 1, apply a masking tape hinge down one edge, with registration tabs applied down both adjacent edges. Cut registration tabs with a sharp blade, leaving half on decal and other half on floor, then peel back the liner to expose adhesive apply the graphic on the floor. Keeping the decal as close as possible to the floor, do not smooth the graphic out with your hands as this results in air entrapment. See Instructional bulletin 1.14 Application Methods for Pressure sensitive adhesives - Large Size decals, for detail illustration.

- Using a hard plastic squeegee, make one firm stroke down the middle of the graphic. From the middle line, use firm strokes from the middle line to the edge. The strokes should be deliberate and overlapping, always working towards the outer edge of the graphic to avoid air entrapment.

- Ensure that masking tape tabs on decal align with matching tabs on the floor for correct registration with single decal application and for correct alignment with multiple overlapping decals.

- If the graphic is large, it may be necessary to carefully lift one of the ends of the graphic while squeegeeing from the centerline to the edges. Repeat this procedure on the other end.

  NOTE: Make sure that adhesive contact is minimized; if necessary contact with the adhesive should be made only with clean hands or lint free gloves.

- After the graphic is applied, re-squeegee the edges and corners again.

  NOTE: Rounded corners on the graphic will help prevent pre-mature lifting of the graphic due to tampering and scuffing. Should square corners start to lift, they can be removed to prevent further damage to the image.

- After applying the graphic, it is recommended that the image not be exposed to traffic for at least 8 hours. This time allows the adhesive to achieve a functional bond to the floor, minimizing pre-mature lifting of the corners.

- If applied to a waxed or treated surface, it is recommended that the surface of the floor graphic also be treated no sooner that 24 hours after application. In the case of commercial wood flooring that is either polyurethane coated or acrylic impregnated, it is not necessary to treat the floor graphic. This treatment recommendation is primarily for vinyl composition tile or vinyl inlay tile that is treated with "no-wax" floor polish.

Maintenance of Floor Graphics

- Avery Dennison Floor Graphics have been designed to withstand daily cleaning with mild soapy water. Commercial buffers can also be used, but it is recommended that 4-5 coats of the floor polish be manually applied to the graphic the first time before using a buffer. It is also recommended that the graphic not be cleaned in any capacity within the first 24 hours. After the initial treatment of the graphic, treat the graphic as if it were part of the floor.

- For the best performance, it is recommended that water not dwell around the image and that the image not be exposed to oils and solvents for extended periods of time.

- Scuffmarks on the graphic can be removed using soap and water, citrus cleaning, and, as a last resort, a scratch-free cleaning pad.

Removal of the Graphic

NOTE: For additional removal instructions, please refer to Instructional Bulletin #1.07.

- When removing the graphic, start at one of the corners and gently pull the graphic toward you at a 90°angle. It may be necessary to use a putty knife to start the removal process. The graphic should remove cleanly. In the event that there is some adhesive residue on the edge of the graphic, the adhesive can be removed by gently scraping with the putty knife or using a Avery Dennison Adhesive Remover. A small border of adhesive and dirt may also be evident after removal of the graphic; however, normal cleaning of the floor will remove these.

- Depending on where the graphic was placed, the area under graphic may appear darker or discolored compared to the surrounding area. Avery Dennison Floor Graphics will offer some UV protection to the floor underneath, as a result, the surrounding floor may fade to due to light sources, but the floor under the graphic will be protected.

- After the 6-month period, it may appear that there is no damage to the graphic and it does not need to be removed.

    NOTE: If the graphic is removed after the specified time period, Avery Dennison will not be liable for any damage to the floor or any personal injuries incurred.

    NOTE: The above information provides basic information on how to apply pressure-sensitive graphics. The Instructions are designed to help ensure success across a broad range of applications. Depending on the size and complexity of applications, a certain amount of expertise is needed.

Warranty and Limited Remedy

This instructional bulletin describes a technique. The information contained herein is believed to be reliable, but Avery Dennison makes no warranties, express or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose. To the extent allowed by law, Avery Dennison shall not be liable for any loss or damages, whether direct, indirect, special, incidental or consequential, in any way related to the technique of making a graphic regardless of the legal theory asserted.

The above information provides basic information on how to apply pressure-sensitive graphics. The instructions are designed to help ensure success across a broad range of applications. Depending on the size and complexity of applications, a certain amount of expertise is needed.

Professional applicators can be hired to ensure proper application of finished graphics. When mounting graphics in remote geographic areas, professional applicators can offer the added benefit of local service.

Avery Dennison has a vast network of Specialist Installers who have been specially trained and certified in accordance with our recommended techniques.

You can review the Specialist Installer list here: https://graphicsap.averydennison.com/en/home/where-to-buy/graphics-installers.html

Consider hiring a professional whenever the application requires:
- Multiple panels to be registered
- Complex surfaces, such as rivet and corrugated trucks
- Harsh environmental conditions (i.e. outdoor applications in high heat climates)
- Remote geographic locations

For further information, contact your local Avery Dennison representative.