

Application Instructions for Avery Dennison® Supreme Wrapping™ Film in Marine Application with Avery Dennison Edge Sealer

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Note that Supreme Wrapping Film is intended exclusively for application above the water line.

1.0 Consult Product Data Sheet

- Before applying the product, please read the product data sheet of Supreme Wrapping Film carefully for information regarding appropriate substrates and product performance. Once assured that all factors are understood with respect to the product, all factors comply with the product specifications and you made the assessment that the Avery Dennison Supreme Wrapping Film is suitable for the intended application, you can decide to apply the Avery Dennison Supreme Wrapping Film. Also, prior to applying the product, please consult the Material Safety Data Sheet (MSDS) of Avery Dennison Edge Sealer
- This technical bulletin is focused on the use of Supreme Wrapping Film for Marine application in combination with Avery Dennison Edge Sealer. If you are not familiar with Supreme Wrapping film, please refer first to Technical Bulletin #3.12, giving general application instructions for Supreme Wrapping Film.

2.0 Application Tools

- Tool belt – to hold all application tools (Avery Dennison product code CB0650001)
- Microfiber Felt Edge Squeegee, like the following:
 - Squeegee Pro (Avery Dennison product code CA3480002)
 - Squeegee Pro Flexible (Avery Dennison product code CA9080002)
 - Squeegee Pro Rigid (Avery Dennison product code AP8270002)
- Cutter with break off blades (Avery Dennison product code CA8140001)
- Lint-free cleaning cloth
- Professional Heat Gun
- Avery Dennison Surface Cleaner (Avery Dennison product code CA3750001)
- Avery Dennison Application Glove (Avery Dennison product code BN6260001)
- Avery Dennison Edge Sealer (Avery Dennison product code BP2530001)
- A thin brush
- Protective Gloves and goggles (for Avery Dennison Edge Sealer application only)

3.0 Preparation and cleaning of the application surface

Before applying Supreme Wrapping Film, it is mandatory to remove the boat or marine vehicles from the water and secure it on a stable position in a well-lit, ventilated and clean environment.

Prepare the application surface by removing all unnecessary hardware, rigging and any pre-existing graphics. Make sure to apply on a smooth application surface, carrying out spot repair or gel-coat re-application, if needed.

To prepare the application surface, wash it with a mild detergent solution, after which the surface should be rinsed and dried with a lint free cloth.

After the surface has completely dried, the surface should be further cleaned and degreased using Avery Dennison Surface Cleaner and a lint free cloth. Depending upon the level of contamination, this process may need to be repeated to ensure that the surface is fully prepared for application.

It is recommended to clean the application surface with Avery Dennison Surface Cleaner. Many other commercially available cleaning/degreasing products may be suitable for cleaning and degreasing but need to be tested prior to use.

4.0 Installation of the film

Note that Supreme Wrapping Film is intended exclusively for application above the water line. For a successful application, follow the below instructions:

- Ensure that the application surface is clean and dry before application of any graphic film.
- Be sure the air, film, and substrate are within the temperature range recommended for the film. For more details, please consult TB 3.12.
- Always ensure your squeegee is in good condition for application and has a smooth edge. This ensures a smooth graphic finish after application is completed, and that 100% of the adhesive has contact with the vehicle substrate.
- Locate where to position graphics and mark the spot on the substrate using small pieces of tape.
- Apply the product starting from the bow to the stern. When applying, it is very important that the unwind direction of the roll is consistently oriented into one direction during application and application orientation is kept the same between different pieces. Please refer to TB 3.12 for more details.
- Squeegee the film using moderately firm, overlapping strokes, using an Avery Dennison squeegee with felt cover. When applying the film, hold the squeegee at 50-70 degree angle and overlap all strokes by approximately 50%. Make sure the material has made 100% adhesive contact with the substrate along the entire length of the stroke.
- Re-positioning of the film is only possible in the stage of positioning and low squeegee pressure. If done in a later stage small marks or images might remain visible in the film surfaces.
- For curved shapes, in order to further facilitate stretching of the film, heat can be applied to the film. For optimal conformability a film temperature between 40-55°C is recommended.
- As the last step of the application, Avery Dennison Supreme Wrapping Film must be heated between 80° to 90°C in convex, concave and compound shaped surfaces to fix the product in place.
- During a wrapping process with Avery Dennison Supreme Wrapping Film it is recommended to use material of the same production lot. The batch number of the material is clearly identified on a label in the core of each roll.

5.0 Finishing the application

5.1 Re-Squeegeeing & Re-Heating

Re-squeegee the most critical areas to ensure secure adhesion to the substrate and avoid any premature failure due to edge lifting.

- Re-squeegee all graphic edges, overlaps, and seams using firm pressure.
- Use a heat source during this process to ensure edges are sealed properly, attaining temperatures in the range of 80-90°C.
- Use AD squeegee with a felt cover to prevent scratching or damage to the decal.
- Re-squeegeeing and re-heating is a must on ALL edges of the decal, including any overlap edges.

5.2 Sealing graphics edges

For any marine application of Supreme Wrapping Film, it is mandatory to apply Avery Dennison Edge Sealer on any edges. The application of Avery Dennison Edge Sealer is required to prevent the film from being released by exposure to water. Any and all warranties, if granted, shall be void if Supreme Wrapping Film has been applied in marine environment without seal edges.

Before applying Avery Dennison Edge Sealer, re-squeegee the edges of the graphics and verify that the application area for the sealer is clean, dry and free of contaminants. When applying Avery Dennison Edge Sealer, please wear the required protective equipment (gloves and goggles), as indicated in the MSDS. Make sure not to leave the can open and exposed to air, to avoid any contamination and loss of performance. To facilitate the application process, you can transfer needed quantity of edge sealer from original can to a separate container.

Apply Avery Dennison Edge Sealer on an inconspicuous part of the substrate, to verify it does affect the application surface.

Using a thin clean brush, apply Avery Dennison Edge sealer by pulling the brush along the edge with a firm and continuous movement. Product can be applied directly from the can, without using any thinner or dilution agent. As a result, the graphics edges need to be completely sealed with no gaps and the edge sealer needs to cover both the film and the substrate. Let the sealer and graphics dry for 24 hours before putting into service.

6.0 Confirm Adequate Adhesion and Inspect

Ambient temperature is a key environmental factor affecting adhesion of pressure sensitive adhesive films. The warmer the ambient temperature is, the less time it will take the film to achieve adequate adhesion. Material applied in temperatures below the recommended low application temperature may take significantly longer, even days, to achieve adequate adhesion.

Before delivering, inspect the installation completely verifying all material edges have full adhesion to the substrate, all compound curves have been properly set with heat, and the material has been applied and finished properly. Whenever possible, move the wrapped object outdoors for natural light or use a well lit interior area to ensure a high quality application has been achieved. It is recommended to wait a minimum of 24 hours before putting the boat or marine vehicle back in the water.

7.0 Cleaning Maintenance and Removal

Refer to Technical Bulletin 1.6 “Cleaning and maintenance of Avery Dennison decals and Graphics” for general guidelines.

The cleaning solution should have a pH of 3-11. Dilution ratios of the cleaning solutions, as recommended by the manufacturer should be closely followed to reduce/minimize film degradation.

For cleaning & maintenance of Avery Dennison Supreme Wrapping Films with matte finish, test an inconspicuous area of the film prior to using any cleaners, wax, and polish to ensure no color shift or change in finish is caused to the film. Cleaning products must be grit free to avoid scratching and it is recommended to always use a soft chamois or microfiber cloth. Do not use brushes. During cleaning, Water temperatures should not exceed 50°C. Final clean water rinse is necessary. Dry with a soft non-scratching absorbent cloth to avoid spots.

To clean your wrap and preserve it to top-conditions, it is recommended to use Avery Dennison Supreme Wrap care products, such as Wrap care cleaner, Wrap care power cleaner and Wrap care sealant.

For instruction on removability of the graphics, please refer to TB 1.2.

For removing any excess of Avery Dennison Edge Sealer, use isopropyl alcohol (IPA) or Avery Dennison Adhesive Remover. Also in this case, test the removal liquid of choice on an inconspicuous area of the surface.

8.0 Durability of Supreme Wrapping Film in Marine Application

The use of Supreme Wrapping Film in marine application reduces the durability of the product by approximately 30%, compared to application on vehicle. As a result, the durability statements for Supreme Wrapping Film in Marine are the following

| | Zone 1 | | Zone 2 | | Zone 3 | |
|----------------------------------|-----------|---------------------------|------------|---------------------------|-----------|---------------------------|
| | Vertical | Non Vertical / Horizontal | Vertical | Non Vertical / Horizontal | Vertical | Non Vertical / Horizontal |
| SWF Black & White | 8.5 years | 4 years | 7 years | 3.5 years | 5.5 years | 2.75 years |
| SWF Colors | 7 years | 3.5 years | 5.5 years | 2.75 years | 4 years | 2 years |
| SWF Metallics & Pearlescent | 3.5 years | 1.75 years | 2 years | 1 years | 1 year | 0.5 year |
| SWF Metallics (with Gold Flakes) | 2 years | 8 months | 1.75 years | 4 months | 1 year | 3 months |
| SWF Extreme Texture | 3 years | 8 months | 1.5 years | 4 months | 8 months | 2 months |
| SWF Diamond Line | 2 years | 8 months | 1.75 years | 4 months | 1 year | 3 months |
| SWF ColorFlow Series | 3 years | 8 months | 2 years | 4 months | 1.5 years | 3 months |

9.0 Brief summary

- Clean the surface using Avery Dennison Surface Cleaner
- Apply the film using Avery Dennison Squeegee Pro
- Pre-heat film between 40°- 55°C for curved surfaces
- Eliminate all air from under film
- Re-treat entrapped air
- Post-heat to 90°C
- Re-squeegee critical areas
- Seal the edges with Avery Dennison Edge Sealer
- Allow 24 hours acclimatisation period before putting wrapped surface into service

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