

Application Instructions for Avery Dennison® Supreme Wrapping Film

1. Surface preparation:

It is recommended to clean the application surface with:

- Avery Dennison® Surface Cleaner

Many other cleaning/degreasing products are available. The applicator should establish the suitability of a product prior to actual use.

In addition, the following factors should be considered prior to any application:

- Car wax and polish residues must be completely removed.
- Paint surfaces must be completely dry, hardened and free of scratches. On most baked paints films can be applied immediately after cooling down. Air-dried and car repair paints require at least one week to dry out before films should be applied. Solvent residues in painted substrates may adversely affect film adhesion and might cause excessive shrinkage or blistering.
- Painted substrates for self-adhesive films should be prepared according to the paint manufacturer's instruction. Here, too, it is important to avoid solvent retention. Paint system components which are not compatible or do not adhere properly to each other may cause paint to be lifted when films have to be removed after use.
- Special attention should be given to critical areas as edges, corners, welding seams, rivets and the like. One should certify that these areas are thoroughly cleaned and dried before application.

2. Application :

Avery Dennison Supreme Wrapping Film products have a high degree of conformability compared to other cast vinyl films. Therefore most of the instructions given in Technical Bulletin 3.9 are applicable. Consult this technical bulletin prior to the application of Avery Dennison Supreme Wrapping Film.

However, two major differences exist:

- NO Application Tape is required for the application
- DO NOT apply with water (wet method)

Avery Dennison Supreme Wrapping Film is powered by Easy Apply RS Technology, which features an easy-to-apply property of the adhesive in combination with a conformable film. This combination allows easy positioning

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of the product to the application surface without the immediate bond of the product to the substrate. Once the material has been positioned gently start to squeegee the film. Use an Avery Dennison Squeegee Pro or Pro XL with felt cover and gradually increase the pressure in order to remove all the air from under the film, this requires a stronger pressure than used for flat adhesive products. Overlap the squeegee strokes by about 50% to avoid remaining air entrapments.

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.

In order to further facilitate stretching the film around curves heat can be applied to the film. Naturally the level of applied heat will depend on the ambient temperature. In areas with temperatures below the average of 20°C, more heat will be required for easy application. However, when the temperature rises over 30°C it might not be needed to use an artificial heating source or to a limited extent. For optimal conformability a film temperature between 40-55°C is recommended.

Avery Dennison Supreme Wrapping Film must be heated after full application between 80° to 90°C in convex, concave and compound shaped surfaces to fix the product in place.

The purpose of the Avery Dennison Supreme Wrapping Film is to wrap or totally cover any form of object, therefore it is not possible to give individual instructions covering each application. It is advised to experiment with a small piece of material on the substrate in order to feel the nature of the film and the adhesive. Convex and compound shapes are usually very easy to cover with Avery Dennison Supreme Wrapping Film, but in some very deep corrugated shapes it might be needed to make an incision in order to avoid any form of air entrapment in the deep recesses. This incision does not jeopardise the functionality or durability of the product, actually it permits the after treatment with heat to reach the maximum conformability of the product without any restrictions.

During a wrapping process with a selected Avery Dennison Supreme Wrapping Film it is recommended to use material of the same production lot of Avery Dennison. The batch number of the material is clearly identified on a label in the core of each roll.

3. Application of metallic and matt films:

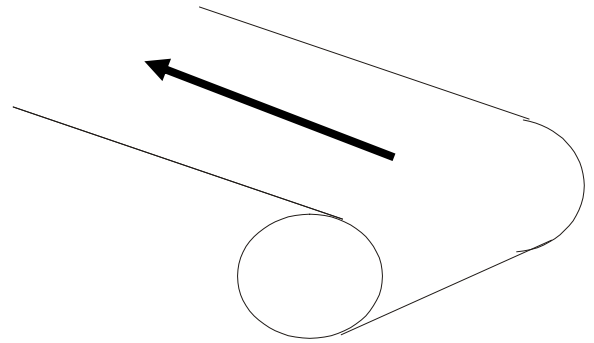
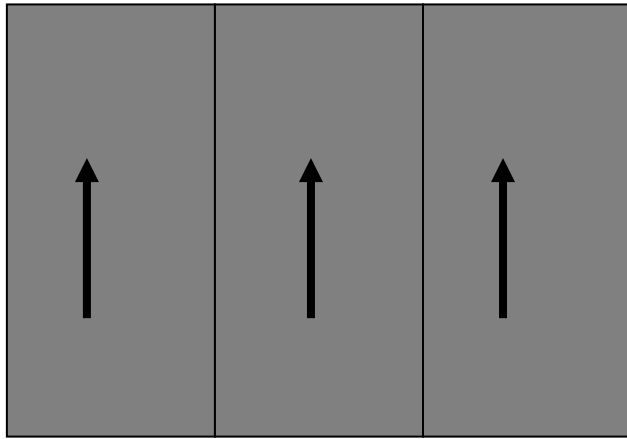
Application of metallic and matt Supreme Wrapping Film follows the same instructions as above. However, matt and metallic films have a directional surface finish, so in addition it is made by mixing small metallic flakes in the film formulation. The flake distribution in the film is influenced by the process

direction of the film; therefore the appearance of the film might slightly change if observed from different angles (this effect is called: 'flop').

Matt films also have a directional surface finish. Therefore it is very important for both film types that the unwind direction of the roll is consistently oriented into one direction during application.

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With matt and metallic finish products it is even more important that material should be used from the same batch number for one job.



4. Long Term Removability (LTR)

Avery Dennison Supreme Wrapping Film offers long-term clean removability of the film during the lifetime of the product. The general instructions of removal of self-adhesive films is described in Technical Bulletin 1.2.

The Easy Apply Technology not only facilitates the application of the film, it also features clean removability of the material after the intended period of use.

Extended laboratory tests and accelerated ageing tests have shown that under these conditions a clean removability level of over seventy percent is reached.

Of course different application substrates and conditions are a variable in this property of the Avery Dennison Supreme Wrapping Film.

5. Brief summary

- Clean the surface using Avery Dennison Surface Cleaner
- Apply the film using Avery Dennison Squeegee Pro or Pro XL
- No Application Tape needed
- Do not use wet application method
- Pre-heat film between 40°- 55°C
- Eliminate all air from under film
- Re-treat entrapped air
- Post-heat to 90°C
- Re-squeegee critical areas
- Allow 24 hours acclimatisation period

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6. References

- Technical Bulletin 1.2 : Removal of self-adhesive films
- Technical Bulletin 1.4 : Application methods for Avery Dennison self-adhesive films
- Technical Bulletin 3.9 : Application instructions for Avery Dennison 900 Super Cast
- Avery Dennison Academy : Theory module 5; application technique