

## TECHNICAL BULLETIN 3.4

# Application and Maintenance Instructions for Avery Dennison® 5500 QM and 5600 LD Translucent Films onto Avery Dennison® Flexible substrates

issued: 4/2019

Rev. 1

### Introduction

Avery Dennison 5500 QM and 5600 LD Translucent Film are cast self-adhesive material in a wide range of colours with optimal cutting and weeding properties. Avery Dennison Flexible substrates is a very unique flexible signage substrate made of reinforced polyester vinyl with a special topcoat on the smoothest side. Section 1 of the bulletin supplies the information for easy and proper application of the translucent film onto the Flexible substrates. Section 2 of the bulletin provides information on the maintenance of the translucent, coloured signage film on the white Flexible substrates Signage Pro.

## Application Instructions

### A. Frame preparation

#### General frame preparation.

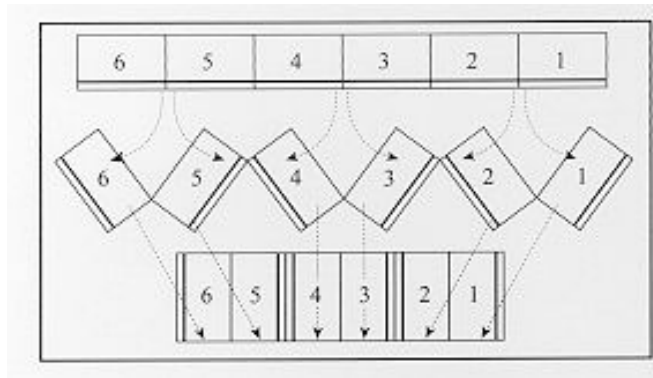
There are many signframe manufacturers in the signage market, each promoting the features and benefits of their own system. It would be too extensive to describe the preparation, assembling and final mounting of each of them.

In general one should follow the instructions and indications given by the chosen frame manufacturer and contact the source of supply in case of technical questions and doubts.

Nevertheless, for the proper application of the 5500 QM and 5600 LD Translucent Films onto Avery Dennison Flexible substrates, it is of crucial importance to select a known and recognized frame manufacturer in your region or country.

### B. Product preparation

1. Convert the Avery Dennison 5500 QM and 5600 LD Translucent Films with a signcutting system according to your own standard practices and procedures or consult the Avery Dennison Technical Bulletin 3.1 for further instructions.
2. It is advisable to cut and weed the graphic prior to its application to Avery Dennison Flexible substrates. This will prevent the substrate exposure to possible damages.
3. When more than two pieces of translucent material are joined together to form a continuous surface a certain sequence of handling should be followed. This procedure is a quite common practice in the sign industry and is illustrated below :



This format of swinging flat surfaces results in matching sides from as many rolls as required of any size sign.

### C. Application procedure

#### a. Application of the translucent sign material onto the tensioned substrate in the frame.

The Avery Dennison 5500 QM or 5600 LD signcut material can now be applied to the prepared sign frame with the Avery Dennison Flexible substrates.

1. The tension of the substrate in the frame should in accordance with the instructions and procedures provided by the frame supplier.
2. The surface of the substrate must be absolutely dust and dirt free. Also the work environment needs to be very clean as well.
3. The wet or dry film application method can be used depending on the size or standard practices of the applicator. Application tape however is strongly recommended in both cases.
4. After the lamination of the signcut 5500 QM or 5600 LD Translucent Films firm pressure should be applied by means of a squeegee to the Avery Dennison Flexible substrates in order to guarantee an appropriate bonding procedure. If the wet application method is used, the squeegee should be passed again in overlapping strokes to assure the removal of any excess of application fluid from under the film.
5. The application tape should not be removed before the adhesive bonding of the film to the substrate has been established. In general the timespan of the removal of the application tape is dependent on the application temperature and the surrounding temperature of the working area, but could be indicated as not sooner than 20 minutes and not longer than 2 hours after application.
6. Remove the application tape away from the film at an angle of 180°.
7. The type of application tape is important to the success of the procedure.
8. Re-squeegee all edges of the graphic after the removal of the application tape.

## **b. Application of the signcut material onto the Flexible substrates prior to mounting and tensioning in the frame**

In general, this method requires some basic equipment for the effective and clean application of the sign onto the Flexible substrates. If the dry application method is chosen a laminator can be used. Also a clean and flat work table could be used for the job. For large size sign fabrication one might think to use floor space for lamination, however this method is certainly not advisable.

1. After the application has been completed the combined media can be mounted onto the prepared sign frame. The Flexible substrates with the sign should be left flat at all times, media might be slightly bent, but never folded.
2. Follow the standard procedures as described before in C, sub a from 2) until 7) and prepare the substrate for tensioning in the frame. As described earlier in the text, apply the tension first in the width direction of the frame, followed by the length direction, in order to obtain the correctly tensioned system.
3. The operation should not immediately take place after laminating the pressure sensitive film to the substrate. The pressure sensitive material should have the time to start its initial bond to the substrate for a minimum of 20 minutes prior to applying the required tension in the frame. This timespan is needed to avoid the adhesive to creep over the substrate surface, which might cause edge lifting or undulations of the film in the future.
4. In summary: all possible attention and care should be taken during all the phases of the application.

Some precautions during the application period, storage and shipping of the laminated substrate:

- Do not cut Avery Dennison Flexible substrates on the floor
- Do not drag the surface across a table
- Do not fold or bunch the material, even after lamination with the translucent film.
- Never fold Avery Dennison Flexible substrates, with or without adhesive laminate, always roll up.
- Always leave the signcut material to the outside to avoid delamination.

## **Maintenance Instructions**

Avery Dennison 5500 QM and 5600 LD Translucent Films and Avery Dennison Flexible substrates need to be cleaned with a minimum frequency of every 6 months to extend the service life to maximum, avoiding early deterioration of the Flexible substrates and the applied sign product.

### **Cleaning Instructions:**

1. In general, a mild non-abrasive soap solution will remove all or most of the surface dirt since this selfcleaning feature was built in during the development and evaluation stage of the product.
2. More severe dirt or stains can be removed with special cleaning sets for Flexible substrates in the marketplace of which several were tested with satisfactory results, not showing any influence on the sign material nor on the substrate.
3. More persistent or delicate stains on the Flexible substrates might be cleaned with IPA (Isopropylalcohol 100% ) but the solvent should be carefully tested prior to the use of the material. In this case the IPA should never be used on the 5500 QM or 5600 LD translucent material, just on the Flexible substrates, therefore any excess of liquid should be immediately removed after being used with lint-free cloths or paper towels.
4. Cleaning agents may vary in composition, thus it is essential that the manufacturer's recommendations on the use and dilution of their specific products are followed to the letter.

5. The frequency of the cleaning sessions should be at least every six months in order to guarantee fit-for-use at all times for a long period of time.
6. High pressure cleaning is discouraged, should it however be the only cleaning method available, than the following remarks should be observed:
  - Use medium to low water temperatures, since high water temperatures might interfere with the adhesion of the sign with the substrate.
  - The nozzle should be pointed perpendicular to the surface, since working under an angle of less than 90° might influence the adhesion level of the film to the substrate.
  - Cleaning agents may vary in composition, so it is essential that recommendations by manufacturers on the use and dilution of their specific products are followed to the letter.

Additional information can be found in:

Technical Bulletin 1.4: Application Methods for Avery Dennison® self-adhesive films

Technical Bulletin 3.5: Recommended substrates for Avery Dennison® Translucent Film and Avery Dennison® 5300 Blockout Film

Technical Information sheets for all individual products

**DISCLAIMER**

All Avery Dennison statements, technical information and recommendations are based on tests believed to be reliable but do not constitute a guarantee or warranty. All Avery Dennison products are sold with the understanding that the purchaser has independently determined the suitability of such products for its purposes. All Avery Dennison's products are sold subject to Avery Dennison's general terms and conditions of sale, see <http://terms.europe.averydennison.com>