Label Dispensing Guide

Introduction

- Globally packaging trends are towards sustainable products, Avery Dennison are industry leaders in this area and are able to offer a comprehensive range of Pressure Sensitive laminates to suit.
- These trends have led to thinner, hence more sustainable materials.
- Down-gauging (lower calliper) of materials may require adjustments to label applicators.
- Pressure sensitive labels are sometimes referred to as self adhesive, however this term is not a good description as the adhesive requires pressure in order to form a bond to the intended surface.
- As there are many brands and types of applicators in the market it is impossible to give recommendations to suit all. However following are some general guidelines to achieve optimum label application.

Applicator Settings

One example targeting sustainability is changing from a Glassine liner and high calliper filmic face, to a PET liner combined with a low calliper filmic face material:

1. In this case a sharper radius on the peel plate should be utilised to avoid labels following the liner.
2. Peel plate distance to bottle should be minimised.
3. Label flag should also be reduced. *Note this will vary on applicator types, eg: pressure belt type will require more flag than a squeegee device (consult applicator manufacturer).
4. Where a PET liner / Clear face is to be used, label positioning sensor suitable for clear materials is required eg: Ultrasonic or Capacitance.
5. Pressure needs to be applied simultaneously as the label first contacts the bottle, this will ensure all air is expelled from under the label, hence avoiding bubbles and tunnels. “Applying the label followed by wiping is not recommended”.
6. In some cases in-line applicators are using brushes & low density foam rollers to wipe labels successfully, eg carton labelling. However brushes & low density foam rollers are not recommended for pressure sensitive applications where bubble / wrinkle free finish is required, eg Filmic labels on glass / plastic bottles, Wine labels etc, these wipers do not exert suitable amount of pressure across the label surface and are not able to expel air from under the label.
7. Adequate pressure needs to be applied from leading edge through to trailing edge in order to achieve label “stitch down”.

Recommended Pressure Devices:

2 or 3 Layer Squeegee

**Pros:**
- Best for expelling air.
- Good pressure application.
- Wide range of adjustment.

**Cons:**
- Pressure may vary from leading to trailing edge.
- Correct combination of layers needs to be optimised on individual machines / bottles.

Pressure Belt

**Pros:**
- Best where high pressure is required.
- Round bottles only.
- Peel plate and flag need to be set accurately to avoid air entrapment.

**Cons:**
- Peel plate and flag need to be set accurately to avoid air entrapment.
- High wear rate requiring diligent maintenance.

Wiper Arcs (Teflon Coated Foam Pad)

**Pros:**
- Best for high speed lines.
- Conformable to bottle surface.

**Cons:**
- Peel plate and flag need to be set accurately to avoid air entrapment.
- High wear rate requiring diligent maintenance.
Pressure devices “Not Recommended” for Pressure Sensitive Materials:
For high end label application to bottles, low density foam rollers and brushes are not the most suitable for pressure sensitive adhesives.

Warranty Statement

All statements, technical information and recommendations about AVERY DENNISON products are based upon tests believed to be reliable but do not constitute a guarantee or warranty. All AVERY DENNISON products are sold with the understanding that PURCHASER has independently determined the suitability of such products for its purposes. AVERY DENNISON products are warranted to the original purchaser to be free from defects in material or workmanship for a period of one year from date of shipment. Purchaser’s sole and exclusive remedy for breach of this warranty shall be the replacement of the defective products or, at AVERY DENNISON’s option, the issuance of a credit or refund in an amount up to the purchase price of the defective product. In no event shall AVERY DENNISON be responsible for claims beyond the purchase price of the defective product.

THE WARRANTY SPECIFICALLY SET FORTH ABOVE IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR USE AND/OR NON-INFRINGEMENT. AVERY DENNISON SPECIFICALLY DISCLAIMS AND EXCLUDES ALL OTHER SUCH WARRANTIES. IN NO EVENT SHALL AVERY DENNISON BE LIABLE TO PURCHASER OR ANY OTHER PARTY FOR INDIRECT, CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES.

No representative or agent of AVERY DENNISON is authorised to give any guarantee or warranty or make any representation contrary to the above. No waiver, alteration, addition or modification of the foregoing conditions shall be valid unless made in writing and signed by an executive officer of AVERY DENNISON.

Avery Dennison Materials Group
Asia Pacific