

Technical Marketing Bulletin

Wine neck label recommendations

May 2014

Introduction:

- The performance of wine bottle neck labels can be problematic when aspects of their construction, environment, label design, inks, varnishes, application and bottle surface are not ideal.
- Neck labels may apply well on a bottling line, with no sign of lifting evident during packaging. However, label lifting can be experienced at a later stage, such as when opening a case of wine bottles at the retail store.
- This document will discuss the problems experienced with label lifting, factors that contribute to these problems, recommendations to best avoid occurrence and Avery Dennison material recommendations.

Situation:

- Neck labels that have initially applied well and do not indicate any sign of lifting at the packaging stage have indicated variable degrees of lifting. This may also be referred to as winging.
- In these situations the problem is not evident until the case is opened at the retail store. This is not a problem that is easily dealt with at this stage.
- The store generally rejects the wine and the product is recalled by the winery for rework.
- A recall is a costly exercise with many parties involved to investigate the root cause.

Problem:

- When conditions are not ideal the memory of a face stock is strong enough to cause a label to lift and return to its original flat state.
- This can be a very slow process and may not be evident until 24 hours later.

Factors influencing neck label lifting:

There are many factors that can influence the label to lift.

1. Incorrect material used: (face stock and/or adhesive).

Avery recommends, as a general rule, the use of a permanent adhesive, and the thinnest possible face stock.

Material at or above 85 gsm should be avoided all together.

A good choice would be a Avery Dennison film face stock, because its low memory properties make it less susceptible to lifting.

2. Environment:

In cold conditions (around 5°C) the adhesive can harden and therefore not form a good bond to the substrate.

High temperatures (above 40°C) will cause the adhesive to become soft and therefore lose its internal cohesive strength.

A high degree of moisture and dust in the filling hall will also reduce the adhesive bond area by preventing the adhesive from flowing across the bottle's surface ('wetting out').

In some cases, it may be necessary to use film material to hide the variation in thickness of the folded cap. It is important to select a film stock with low stiffness (PE will perform better than PP at the same thickness). Label dispersion also needs to be taken into consideration when selecting the face stock for neck label applications.

3. Inks and Varnishes:

Experience has shown that pressure sensitive adhesives generally display reduced adhesion on printed and varnished surfaces.

In many cases, inks and varnishes contain small amounts of silicone to provide good scuff resistance for the label's surface on the bottling line and during transportation. However, silicone is used as a release coating in the self-adhesive label application process, so where a label overlap is required, reduced adhesion is to be expected

If an overlap is required on a neck label, Avery Dennison strongly recommends the provision of a 1.5cm unprinted and unvarnished area be considered in the label design. This is a critical for optimal adhesion. Where a varnish-free area cannot be obtained, the use of a varnish featuring a high surface tension is a good alternative (prior testing is required).

4. **Bottle surface:**

All wine bottles contain an anti-scuff coating. The labelling area is not perfectly flat and smooth. Using the best quality bottles ensures the optimum adhesion performance of neck labels.

5. **Application:**

Proper wipe down of the label is critical, foam or brush wipers are not recommended.

Rubber squeegee wipers backed with spring steel are the preferred option.

Disclaimer

- This bulletin has been provided as a guide only and is not intended to be an exhaustive description of materials, processes and their characteristics.
- The information contained in this bulletin is based on Avery Dennison's best understanding of industrial practices and environmental issues at the time of publication.
- Stakeholders should carry out their own comprehensive trials for product suitability in the intended application.

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