S-100R Wash-Off

1.0 Background

Avery Dennison designed S-100R adhesive to meet specific market needs, including the ability to wash-away or soak-off a label from a purchased product. The adhesive is popular in the wine and spirit market, as brand owners like to rework packages. This has expanded to include the recycling, or reuse, of glass containers in the beverage industry.

2.0 Scope

This technical marketing bulletin discusses the wash-off basics of the S-100R adhesive and design considerations which can affect how the adhesive performs. Testing at the end-user is required to define the best methodology.

3.0 Material Requirements

This test method assumes the procedure is done on a labeled filled or empty glass bottle. Other materials required are a large container that allows the labeled bottle to stand upright, with the label completely covered in water.

The water can be heated, no more than 80˚ F for filled bottles or up to 180˚F empty. The adhesive is designed to be water removable at 100˚F for five minutes.

4.0 Equipment

Other materials may include ammonia, or another additive which alters the pH target to no more than 10, a plastic or metal scrapper, wire brush or knife, isopropyl alcohol (in liquid form or packaged wipes) and warm water. Required safety equipment includes gloves, protective eye wear and adequate ventilation.

5.0 Test Method

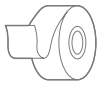
Carefully place bottle in warm water. A reaction can occur between five and 30 minutes. Time is dependent upon the bottle coatings, label face materials, and label inks and coatings. It may be necessary to scrape the label surface to induce a reaction. The wire bristles will break through the varnish coating allowing fast water penetration.

Ammonia should be added in small increments (one cup per every five gallons of water). Make sure the safety precautions are read on the backside of the ammonia container and follow those procedures and recommendations.

After the predetermined time has been attained, remove the bottle and carefully remove the label. If the label does not easily lift away, scrape away the label using a plastic automotive, putty or Bondo scraper. Razor blades are not recommended, as they can scratch away the bottle coatings. Wipe the bottle with a wet rag to remove any residual adhesive or debris. Wipe off any adhesive residue with isopropyl alcohol and towel, remembering to use rubber gloves, safety glasses and to stay in a well ventilated area.

6.0 Label Design Considerations

End users and converters are responsible for testing and deteriming the fitness of use for their specific application. Factors like embossing, over-laminate, etc. can impact wash-off characteristics.



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