



Standard Specification for LIQUID ADHESIVES FOR AUTOMATIC MACHINE LABELING OF GLASS BOTTLES¹

This standard is issued under the fixed designation D 1580; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval.

^a NOTE—Section 2 was added editorially and subsequent section numbers changed in July 1979.

1. Scope

1.1 This specification covers starch, dextrin, casein, animal gelatin, and other liquid adhesives (excepting pressure-sensitive types) used for applying paper labels to glass bottles.

1.2 It includes provisions for adhesive selection based on satisfactory machining characteristics on specific labeling equipment, and adequate adhesion under specified storage conditions.

1.3 This specification further provides for the control of uniformity between lots of an adhesive selected on the above bases by limiting variations in nonvolatile content and viscosity.

2. Applicable Documents

2.1 *ASTM Standards:*

D 1084 Test for Viscosity of Adhesives²

D 1489 Test for Nonvolatile Content of Aqueous Adhesives²

D 1581 Test for Bonding Permanency of Water or Solvent-Soluble Liquid Adhesives for Labeling Glass Bottles²

3. Significance

3.1 This specification is intended to provide bases for adhesive selection as well as product uniformity control. Methods of test are specified for measuring nonvolatile content, consistency, and bonding permanency under specified storage conditions.

4. Requirements

4.1 The nonvolatile content of the adhesive shall be within ± 1.5 % of that specified in the contract or purchase order.

4.2 The consistency of the adhesive shall be within ± 10 % of that specified in the contract or purchase order.

4.3 The general consistency shall be uniform, and the adhesive shall be free of lumps and particles.

NOTE—Since some adhesives, particularly ice-proof types, may contain small percentages of pigments or chemicals which may not be completely soluble, such adhesives shall not be rejected on this basis unless particles cause deformation on the label surface.

4.4 The machining properties shall be such that the adhesive (when diluted according to the manufacturers' instructions) shall not string when machine transfer surfaces are separated, shall not build up excessively on machine pads, rollers, or transfer plates, and shall not foam.

4.5 The bonding permanency of the adhesive shall provide a minimum of 90 percent paper fiber tear when tested under the exposure conditions specified in the contract or purchase order. The exposure conditions shall be selected from those in Method D 1581.

5. Sampling

5.1 The adhesive sample shall be a 0.9-litre (1-qt) aliquot consisting of a composite taken when possible from three or more separate containers chosen at random. Also take samples from containers which appear to be nonrepresentative and test separately. Before a sample is withdrawn, mix the contents in the container

¹ This specification is under the jurisdiction of the ASTM Committee D-14 on Adhesives.

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² *Annual Book of ASTM Standards*, Part 22.