



Standard Methods of Testing ADHESIVES FOR BRAKE LINING AND OTHER FRICTION MATERIALS¹

This Standard is issued under the fixed designation D 1205; 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.

These methods have been approved by the Department of Defense to replace method 1012 of Federal Test Method Standard No. 175a and for listing in the DoD Index of Specifications and Standards. Future proposed revisions should be coordinated with the Federal Government through the Army Materials and Mechanics Research Center, Watertown, Mass. 02172.

The committee responsible for this standard has voted its withdrawal. In the absence of substantial reasons that it should be continued, the Society will approve its withdrawal from publication in July 1974.

1. Scope

1.1 These methods cover equipment and procedures for qualification and quality control tests of brake shoe lining adhesives and bonds.

ADHESIVE TESTS

2. Scope

2.1 These tests are used to determine adhesive characteristics of a test specimen which has been prepared under specified conditions.

Viscosity

3. Apparatus

3.1 *Viscometer*, motor-driven, spindle-type.

3.2 *Friction-Top Can*, 0.95-liter (1-qt), round, 115 mm (4½ in.) in diameter, 124 mm (4⅞ in.) in height, with an 83-mm (3¼ in.) opening.

4. Procedure

4.1 With the temperature of the adhesive at 25 ± 1.1 C (77 ± 2 F), measure the viscosity of the adhesive.

4.2 After the viscosity has stabilized, take the reading.

5. Report

5.1 The type and amount of agitation before measurement of viscosity shall be agreed upon by the supplier and the purchaser.

5.2 The report shall include the following:

5.2.1 Spindle number,

5.2.2 Spindle speed, and

5.2.3 Make and model of viscometer.

Solids Content

6. Summary of Method

6.1 A sample of the adhesive is weighed and heated in an oven to evaporate the solvent. Then the sample is weighed again.

7. Apparatus

7.1 *Ointment Tin*, 85-ml (3-oz fluid), with cover, 60 mm (2⅞ in.) in diameter.

8. Procedure

8.1 Weigh a 5-g sample (or an amount agreed upon by the supplier and purchaser) of the adhesive at a temperature of the supplier's recommendation; the temperature should be high enough to remove all solvents. Heat the sample for a minimum of 2 h or a sufficient time to establish a constant-weight sample.

NOTE 1—Care must be exercised in obtaining the weight of the sample before heating as the solvent evaporates during weighing.

9. Calculation

9.1 Calculate the percentage of solids content as follows:

$$\frac{\text{weight of sample after heating}}{\text{weight of sample before heating}} \times 100$$

¹ These methods are under the jurisdiction of ASTM Committee D-11 on Rubber and Rubber-Like Materials and are the direct responsibility of Subcommittee D-11.25 on Rubber Adhesive Systems.

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