Designation: D 2834 – 95 (Reapproved 2002)

Standard Test Method for Nonvolatile Matter (Total Solids) in Water-Emulsion Floor Polishes, Solvent-Based Floor Polishes, and Polymer-Emulsion Floor Polishes[1]

This standard is issued under the fixed designation D 2834; 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 superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This test method covers the determination of nonvolatile matter (total solids) in a water-emulsion, organic solvent-based liquid and paste floor polishes, and polymer-emulsion-type floor polishes.

1.2 This test method recognizes that the products may contain material that will slowly volatilize or change chemically with a resulting change in weight of the nonvolatile matter. Therefore, since drying to constant weight is impractical, specific drying times have been selected.

1.3 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Significance and Use

2.1 Nonvolatile matter determination is useful as a quality control test, when used in conjunction with other tests, to assure specification compliance.

3. Apparatus

3.1 *Flat-Bottom Dishes*:

3.1.1 For water-emulsion floor polishes and polymer-emulsion-type floor polishes, use aluminum dishes 1.5 cm deep and 6 cm in diameter.

3.1.2 For solvent-based floor polishes, use glass dishes 4.5 cm deep and 6 cm in diameter, with covers.

3.2 *Analytical Balance*, with a sensitivity of 0.1 mg.

3.2.1 *Drying Oven, Convection-Type*, capable of maintaining a temperature of 105.0 ± 2.5°C (221.0 ± 4.5°F). If many determinations of solvent-based floor polishes are being made at the same time, an explosion-proof oven should be used.

4. Sampling

4.1 The sample shall be thoroughly representative of the material in question, and the test specimen shall be thoroughly representative of the sample itself.

5. Procedure

5.1 Bring the material to be tested to equilibrium temperature at 23 ± 2°C (73.4 ± 3.6°F).

5.2 Making the determination in duplicate, place approximately 2 g of water-emulsion floor polish, or solvent-based floor polish specimen, or 1 g of polymer-emulsion-type floor polish specimen into a tared, dried, flat-bottom aluminum dish of the previously specified size. Weigh rapidly, and place in the oven maintained at 102.5 to 107.5°C. The starting time in the oven is the point at which the oven has returned to temperature after loading. After heating for 4 h for water-emulsion floor polish, 16 h for solvent-based floor polish, or 2 h for polymer-emulsion-type floor polishes. Cool in a desiccator. Weigh to the nearest 0.1 mg.

5.3 Do not overload the oven, and provide space at least equal to the diameter of the dishes between dishes in the oven.

6. Calculation

6.1 Multiply the weight of total solids by 100 and divide by the weight of the sample to obtain the percentage of nonvolatile matter.

7. Precision and Bias

7.1 *Precision*—Duplicate determination should not differ by more than 0.2 %.

7.2 *Bias*—This test method has no bias because the results developed are defined only in terms of this test method.

8. Keywords

8.1 floor polishes; polymer-emulsion floor polishes; solvent-based floor polishes; water-emulsion floor polishes

[1] This test method is under the jurisdiction of ASTM Committee D21 on Polishes and is the direct responsibility of Subcommittee D21.03 on Chemical and Physical Testing. This test method is a consolidation of Methods D 1289 and D 2046.

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