Designation: D 1793 – 92 (Reapproved 1996)ε1

Standard Test Method for Water Spotting of Emulsion Floor Polishes[1]

This standard is issued under the fixed designation D 1793; 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.

ε[1] NOTE—Keywords were added editorially in September 1996.

1. Scope

1.1 This test method covers the determination of water spotting resistance of water emulsion floor polishes. The test method approximates the actual conditions of water spotting encountered in service.

1.2 *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. Referenced Documents

2.1 *ASTM Standards:*

D 1436 Test Methods for Application of Emulsion Floor Polishes to Substrates for Testing Purposes[2]

3. Terminology

3.1 *Definition*:

3.1.1 *water spotting*—any change in appearance of surface resulting solely from the action of cool water.

4. Significance and Use

4.1 This test method measures the ability of a floor polish to resist spotting by water. This test method may be used to measure the extent of damage by a large amount of water or in a separate method to measure the amount of damage by a small amount of water that has evaporated to dryness. Reference polishes should be used for comparison.

NOTE 1—The test method may induce slight whitening, color change, noticeable change in appearance, including removal of the film, which is caused by contact with water.

5. Apparatus

5.1 *Substrate*—The substrate to be used is vinyl composition tile (OVCT).[3]

5.2 *Distilled Water*.

5.3 *Pipet*, volumetric, 1-mL.

6. Preparation of Test Panel

6.1 Apply the emulsion floor polish on the black official vinyl composition tile panel in accordance with Method C (Manual Dip Method) of Test Methods D 1436. After application, place the panel in a near vertical position and at the end of 10 min, wipe off the bead at the bottom of the panel and allow the panel to dry in a vertical position for 2 h at standard conditions of 50 ± 4 % relative humidity and 23.9 ± 1.1°C (75 ± 2°F). Apply a second coat in the same manner but reverse the panel so that the top is at the bottom. Drain in a near vertical position for 10 min, wipe off the bead, and continue drying in a vertical position at standard conditions for 24 h.

NOTE 2—The drying time, counted from the time of application of the second coat, may be varied from 24 h, but it should be remembered that some floor polishes which have suitable water spotting resistance during their normal service life do not achieve this resistance until 24 to 48 h after application.

7. Procedure

7.1 *Dynamic Test*—Standard conditions of 50 ± 4 % relative humidity and 23.9 ± 1.1°C (75 ± 2°F) should prevail in the test area. Place the panel in a horizontal position making sure that the top is level. Place 1 mL of distilled water near the center of the panel, and allow it to stand undisturbed for 1 h. Use cheesecloth,[4] or a soft cotton cloth previously wet with distilled water and well wrung out so that it is just damp and wipe up the water from the panel. Rub a small piece of dry

[1] This test method is under the jurisdiction of ASTM Committee D-21 on Polishes and is the direct responsibility of Subcommittee D21.04 on Performance Tests.

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[2] *Annual Book of ASTM Standards*, Vol 15.04.

[3] The sole source of supply of the apparatus known to the committee at this time is Official Vinyl Composition Tile panels may be purchased from the Chemical Specialties Manufacturers Assn., 1913 Eye St., N.W. Washington, DC 20006. If you are aware of alternative suppliers, please provide this information to ASTM Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend.

[4] The sole source of supply of the apparatus known to the committee at this time is Kendall Mills, Walpole, MA. If you are aware of alternative suppliers, please provide this information to ASTM Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend.