



Designation: D 1792 – 82 (Reapproved 2002)

## Standard Test Method for Long-Term Removability Properties of Emulsion Floor Polishes<sup>1</sup>

This standard is issued under the fixed designation D 1792; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This test method covers the determination of the relative ease of removal of dried films of water-emulsion floor polishes from common flooring substrates under accelerated conditions, which correspond to extended service aging.

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<sup>2</sup>

### 3. Summary of Test Method

3.1 The dried films are conditioned at 37.8°C (100°F) in order to simulate service aging. This method utilizes the Gardner straight-line washability apparatus as a means for controlled removal of the dried films. A heavily weighted pad is employed as a means of arriving at a scrubbing force similar to that of hand scrubbing. In order to distinguish between the relative removal properties of different polishes, the number of oscillations required for complete removal is taken as a measure of removability.

### 4. Significance and Use

4.1 This test method is used to predict removability of floor polish after a treatment period that simulates aging in the field. It allows for uniform mechanical and detergent action leaving the only variable the actual removability of the polish.

### 5. Apparatus

5.1 *Volumetric Pipet*, 1-mL, graduated in 0.2-mL units.

5.2 *Applicator*—Doctor blade 51 mm (2 in.) wide by 25 mm (1 in.) deep and having 0.203-mm (0.008-in.) clearance along the 51-mm (2-in.) length.

<sup>1</sup> This test method is under the jurisdiction of ASTM Committee D21 on Polishes and is the direct responsibility of Subcommittee D21.04 on Performance Tests.

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 15.04.

5.3 *Test Flooring Substrate*—Official Test Vinyl Asbestos Tile (OTVAT),<sup>3</sup> shall be used in the test.

5.4 *Oven*, capable of maintaining a temperature of 37.8 ± 1.1°C (100 ± 2°F).

5.5 *Washability Apparatus*—The Gardner straight-line washability machine.

5.6 *Abrading Surface Nylon Polishing Floor Pad*,<sup>4</sup> attached to a wood block of dimensions 19 by 89 by 38 mm (¾ by 3½ by 1½ in.). Presoaked in stripper solution.

5.7 *Weight*—The boat containing the pad is fitted with a 1-kg (2½ ± ¼-lb) weight. The weight should be properly mounted for uniform load distribution.

### 6. Reagent

#### 6.1 Stripper Solution at Use Concentration:

|                               |      |
|-------------------------------|------|
| Alkaline cleaner <sup>5</sup> | 3 %  |
| Monoethanol amine (MEA)       | 1 %  |
| Water                         | 96 % |

### 7. Sample

7.1 The sample shall be thoroughly representative of the material in question and the portion used for the test shall be thoroughly representative of the sample itself.

### 8. Procedure

8.1 *Preparation of Test Surfaces*—Clean the test tiles with the stripper solution and steel wool. Rinse thoroughly with water and dry at room temperature.

<sup>3</sup> The sole source of supply of the apparatus known to the committee at this time is 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.

<sup>4</sup> The sole source of supply of the apparatus known to the committee at this time is 3M Co., 3M Center, St. Paul, MN 55101. 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.

<sup>5</sup> Recipe for alkaline cleaner:

|                                    | Parts by Weight |
|------------------------------------|-----------------|
| Sodium sesquicarbonate             | 52              |
| Trisodium phosphate (anhydrous)    | 22              |
| Disodium phosphate (anhydrous)     | 25              |
| Alkyl aryl sulfonate (40 % active) | 1               |