



Designation: D 3153 – 87 (Reapproved 1995)

## Standard Test Method for Recoatibility of Water-Emulsion Floor Polishes<sup>1</sup>

This standard is issued under the fixed designation D 3153; 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 effects of the application of a water-emulsion floor polish over a dried coating of the same polish. The method is designed for laboratory bench panel testing. A method is also provided for large area testing. A rating system is provided to indicate the acceptability of the polish based on recoatability performance.

NOTE 1—Recoatibility of a water-emulsion floor polish is a general-performance property, and the determination of it is dependent upon the observation of several other properties of the polish under the specific conditions expressed in this test method. This test method for recoatability is not designed for the evaluation of other properties, except as these properties relate to the recoatability of the specific polish being evaluated under the conditions of this test.

1.2 Gloss as observed herein extends only to freedom from loss of apparent visual gloss upon recoating, in the execution of this test method, and should this loss occur, it indicates a distortion of the property of gloss, by recoating.

1.3 A degree of recoatability failure may be reflected from a degree of leveling failure. The failure to level should be observed only if it is to be a part of the observation of recoatability.

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. Referenced Documents

#### 2.1 ASTM Standards:

D 2825 Terminology Relating to Polishes and Related Materials<sup>2,3</sup>

### 3. Terminology

#### 3.1 Definitions of Terms Specific to This Standard:

<sup>1</sup> 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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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 15.04.

<sup>3</sup> Composition of cleaning solution: MEA 1 %, trisodium phosphate dodecahydrate 10 %, propylene glycol monomethyl ether 6 %, octylphenoxy polyethoxyethanol (nonionic surfactant, 9 to 10 moles of ethylene oxide) 2 %, and distilled water 81 %. Compounding—Dissolve the TSP in the water. Add remaining ingredients and mix thoroughly till clear.

3.1.1 *beading*—the apparent failure of the liquid polish to wet out the surface as evidenced by the gathering of the polish into puddle-like beads.

3.1.2 *drag*—the resistance observed when the wet applicator is moved over the wet coating, when the polish is being spread.

3.1.3 *foaming*—the development and persistence of bubbles in the wet polish during application.

3.1.4 *ghosting*—the dissimilar appearance, in transparency or gloss, of a portion of the coating.

3.1.5 *streaking*—the apparent mark (or marks) that remains in the dried film showing the path followed by the applicator during the spreading of the liquid polish.

3.1.6 *whitening*—the development of a white color on or within a coating during the drying process, which reduces the functioning of a polish to beautify and (possibly) protect floors.

### 4. Summary of Test Method

4.1 The test method involves the application of floor polish using, but not restricted to, cheesecloth or lamb's wool applicator for spreading a measured amount of polish, over previously applied coatings of the polish. The test method includes a fast recoat cycle at 30 min which can also be used following manufacturer's directions and an extended recoat cycle of seven days. All tests are run on commercial floor tile.

### 5. Significance and Use

5.1 The essential practical usage of water-emulsion floor polishes as renewable coatings to protect and beautify floors, depends upon satisfactory recoatability. This test method is useful both in product development and final product testing, as a means of evaluating recoatability.

### 6. Interferences

6.1 The presence of the factory finish, mold-release agents, or other foreign materials on the test surface, prior to the first application of the polish that is to be tested in accordance with this method, will cause irregular results. Abrading the surface of the test panel or area (for example, by cleaning with an abrasive pad) prior to the first application of the polish, will yield abnormal results. The cleaning formula listed in footnote