



Designation: ~~D3153—17~~ D3153 – 23

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

This standard is issued under the fixed designation D3153; 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—Recoatability 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, safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

### 2. Referenced Documents

#### 2.1 ASTM Standards:<sup>2</sup>

~~D2825 Terminology Relating to Polishes and Related Materials~~

### 2. Terminology

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

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

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

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2.1.3 *foaming*—*foaming, n*—the development and persistence of bubbles in the wet polish during application.

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

2.1.5 *streaking*—*streaking, n*—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.

2.1.6 *whitening*—*whitening, n*—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.

### 3. Summary of Test Method

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

### 4. Significance and Use

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

### 5. Interferences

5.1 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 3 ~~should~~ should be used to remove the above mentioned coatings.

### 6. Apparatus

6.1 *Floor Tile Panels*,<sup>2</sup> black vinyl (homogeneous), 304.8 (homogeneous) or official vinyl composition tile (OVCT), 304.8 mm by 304.8 mm (±2(12 in. by 12 in.)).

6.2 *Floor Tile Area*,<sup>2</sup> black vinyl (homogeneous), 1.2 (homogeneous) or OVCT, 1.2 m by 0.9 m (±4(4 ft by 3 ft)).

6.3 *Cheesecloth*, clean, completely free of sizing.<sup>3</sup>

6.4 *Pipet*, ~~5-mL,~~ 5 mL, graduated in 0.2 mL.

6.5 ~~Graduate,~~ Graduated cylinder, 50 mL. 50 mL.

6.6 *Applicator*, lamb's wool.<sup>4</sup>

6.6.1 Optional applicators include ~~chenille pads~~ microfiber flat mops, chenille pads, and cotton and synthetic mops.

~~NOTE 2—Black vinyl composition floor tile panels or black vinyl composition floor tile area of the same dimensions as stated for the black vinyl~~

<sup>2</sup> OVCT tile may be obtained through Armstrong Flooring from various home improvement stores. The following Armstrong tile substrates have been found to perform adequately for this test method: Armstrong Excelon Feature Tile: Black (56790), [http://www.armstrong.com/commercialflooringna/product\\_details\\_toolbox\\_magnify.jsp?item\\_id=47394.\(56790\)](http://www.armstrong.com/commercialflooringna/product_details_toolbox_magnify.jsp?item_id=47394.(56790)).

<sup>3</sup> Gauze pads, available from most pharmacies, are suitable.

<sup>4</sup> Lamb's wool applicators sold commercially, having an area about ~~508~~ 508 mm by 254 mm (±2(10 in. by 10 in.)) of lamb's wool mounted on a support of the same size and attached to a handle of suitable length, are recommended.