Designation: D 6736 – 01

Standard Test Method for Burnish Resistance of Latex Paints[1]

This standard is issued under the fixed designation D 6736; 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 a procedure for measuring the resistance of latex paints to burnishing under dry conditions.

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 523 Test Method for Specular Gloss[2]

D 2486 Test Methods for Scrub Resistance of Wall Paints[3]

D 3924 Specification for Standard Environment for Conditioning and Testing Paint, Varnish, Lacquer, and Related Materials[2]

3. Terminology

3.1 *Definition:*

3.1.1 *burnish resistance*—the ability of a coating to resist an increase in its gloss (sheen) value after polishing or rubbing.

4. Summary of Test Method

4.1 Test paints are drawn down lengthwise on plastic panels using a 0.18-mm (7.0-mil) applicator and allowed to air-dry for one week. Gloss readings are taken at three equally spaced points, lengthwise along the center of the panel. The panel is then rubbed for 20 cycles on a scrub machine, after which gloss readings are again taken along the same path abraded by the scrub machine. The initial values are averaged and the final values are averaged. The difference between the initial and final gloss readings, divided by the initial reading times 100 is a quantitative indication of the paint's resistance to burnishing. Higher percentage increases denote poorer resistance and vice-versa.

5. Significance and Use

5.1 Interior flat paints may become burnished in areas where clothing or upholstered furniture rub against a wall. This rubbing may cause a smoother, glossier surface at the contacted area, depending on the level or type of pigments in the paint and binder hardness. This method permits a more quantitative estimate of burnish resistance than those using manual rubbing techniques.

6. Apparatus

6.1 Constant temperature/humidity room 23 ± 2°C (73.5 ± 3.5°F); 50 ± 5 % relative humidity (standard conditions, Specification D 3924).

6.2 *Washability Machine (Scrub Machine)*, described in Test Methods D 2486.

6.2.1 *Accessory Apparatus*:

6.2.1.1 *Sandpaper Attachment*, total weight 454 g.

6.2.1.2 *Glass Plate*, measured to fit.

6.2.1.3 *Gasket Frame and Clamps*.

6.3 *Large Vacuum Plate*.

6.4 *Film Caster*, having a 0.18-mm (7.0-mil) clearance.

6.5 *Glossmeter(s)*, capable of measuring 60° and 85° gloss in accordance with Test Method D 523.

7. Materials

7.1 *Plastic Scrub Panels*, 43.5 mm × 16.5 mm (17 in. × 6.5 in.), white or black.

7.2 *Cheesecloth*, 4-ply, medium weave.[4]

8. Procedure

8.1 *Application and Evaluation of Test Paints*:

8.1.1 Attach a plastic panel to the vacuum plate and draw down the test paint uniformly lengthwise, using the 0.18-mm (7.0-mil) side of the applicator.

8.1.2 Condition the panels for one week in the constant temperature / humidity room or under other conditions agreed upon between the buyer and seller.

8.1.3 Take three equally spaced gloss readings (Test Method D 523) along the center length of the panel, making sure the

[1] This test method is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.42 on Architectural Coatings.

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[2] *Annual Book of ASTM Standards*, Vol 06.01.

[3] *Annual Book of ASTM Standards*, Vol 06.02.

[4] Bleached cheesecloth, grade 20B, 24/20 (medium) weave, available from de Royal Textiles, Camden, SC, was used in developing this method.