



Standard Practice for Evaluating Touch-Up Properties of Architectural Coatings under Various Environmental Conditions¹

This standard is issued under the fixed designation D7489; 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 practice determines the ability of a paint to be recoated or “touched up” in small areas. Variations in color, gloss, and sheen that result in a different appearance from the original paint can be evaluated visually.

1.2 This practice describes evaluation of touch-up characteristics in a laboratory-scale controlled environment as opposed to a full-scale field environment.

1.3 Evaluation of touch-up properties under constant drying conditions is described. Environmental conditions can be adjusted to incorporate high or low temperature drying, or both. The changes in application temperature can lead to larger differences in touch-up than applying both coats under the same environmental conditions.

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:*²

D344 Test Method for Relative Hiding Power of Paints by the Visual Evaluation of Brushouts

D523 Test Method for Specular Gloss

D1475 Test Method For Density of Liquid Coatings, Inks, and Related Products

D1729 Practice for Visual Appraisal of Colors and Color Differences of Diffusely-Illuminated Opaque Materials

D5068 Practice for Preparation of Paint Brushes for Evaluation

D5069 Practice for Preparation of Paint-Roller Covers for Evaluation of Architectural Coatings

D6762 Test Method for Determining the Hiding Power of Paint by Visual Evaluation of Spray Applied Coatings

E1347 Test Method for Color and Color-Difference Measurement by Tristimulus Colorimetry

3. Terminology

3.1 *Definitions:*

3.1.1 *touch-up, n*—to repair visual differences in a painted surface by recoating small areas with the same paint that was used for the original coat.

3.1.1.1 *Discussion*—This includes color and sheen differences in the dry film.

4. Summary of Practice

4.1 Paints, application tools, and drying conditions are selected before starting this practice. Relevant color(s) for testing and any specific primers should also be selected at this time.

4.2 Multiple coats of the test paint are applied to a specified substrate in a prescribed manner to simulate touch-up conditions. The results are visually evaluated for variations in color, gloss, and sheen between the touch-up coating and the first and second coat.

4.3 A qualitative rating scale for the touch-up result is described.

5. Significance and Use

5.1 During construction of a home, paints are subjected to a wide variety of drying conditions, and this may exhibit differences between the original coat and the touched-up area in appearance after its full cure. Therefore, it is essential for the paint to be able to perform under a wide variety of drying conditions. A paint that does this is very advantageous to the contractor.

5.2 It is possible for a paint to have excellent color touch-up, but poor sheen touch-up, or vice-versa. The ideal paint will have both excellent color and sheen touch-up under testing conditions.

¹ This practice 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.

Current edition approved July 1, 2013. Published July 2013. Originally approved in 2009. Last previous edition approved in 2009 as D7489 – 09. DOI: 10.1520/D7489-09R13.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.