Designation: D 6762 – 02

Standard Test Method for Determining the Hiding Power of Paint by Visual Evaluation of Spray Applied Coatings[1]

This standard is issued under the fixed designation D 6762; 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 provides for the quantitative visual determination of the film thickness required to achieve full hiding. This film thickness is considered to be the hiding power of a test paint.

1.2 This method applies only to spray applied coatings but its concepts are valid for other methods of application as well.

1.3 *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 16 Terminology for Paint, Related Coatings, Materials, and Applications[2]

D 609 Practice for Preparation of Cold-Rolled Steel Panels for Testing Paint, Varnish, Conversion Coatings, and Related Coating Products[2]

D 1005 Test Method for Measurement of Dry-Film Thickness of Organic Coatings Using Micrometers[2]

D 1186 Test Methods for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to a Ferrous Base[2]

D 1400 Test Method for Nondestructive Measurement of Dry Film Thickness of Nonconductive Coatings Applied to a Nonferrous Metal Base[2]

D 1729 Practice for Visual Appraisal of Colors and Color Differences of Diffusely-Illuminated Opaque Materials[2]

D 1730 Practices for Preparation of Aluminum and Aluminum-Alloy Surfaces for Painting[3]

D 2805 Test Method for Hiding Power of Paints by Reflectometry[2]

3. Terminology

3.1 *Definitions*—For definitions of terms used in this test method, refer to Terminology D 16 and the *Paint/Coatings Dictionary*.[4]

4. Summary of Test Method

4.1 The test paint is applied by means of spray application in a wedge-shaped film over a black and white, black and gray or red and gray pattern so that a thickness variation is obtained, which provides excess hiding at one end of the pattern and partial hiding at the other end of the pattern.

4.2 The dry film is examined under standard illumination to select the point where the pattern just becomes obscured. The thickness of the film at this point is designated the hiding power of the paint.

5. Significance and Use

5.1 This test method determines hiding power of a test paint by visual evaluation of a spray applied coating.

NOTE 1—Test Method D 2805 describes an instrumental method for determining hiding power. The paint film is applied at a uniform thickness (for example with a doctor blade), the film thickness is measured rigorously, and the opacity is determined photometrically. Hiding power is thereby determined with a high degree of precision.

5.2 Test Method D 6762 is less precise than Test Method D 2805, but is commonly used since it is more closely related to the application characteristics of the paint and is simpler in concept and evaluation.

6. Apparatus

6.1 *Test Surface*, a smooth-surfaced paper chart, approximately 2 by 11 in., with a test pattern having adjacent black and white, black and gray or red and gray areas and coated with a suitable varnish or lacquer so as to render the surface impervious to paint liquids.

NOTE 2—The red, gray, white and black areas should fall in the following colorimetric range:

	CIE-Y %	C[A]	h[A]
Red	4–7	10–18	26–38
Gray	28–34		
White	80–83		

[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 D01.26 on Optical Properties.

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

[3] *Annual Book of ASTM Standards*, Vol 02.05.

[4] Published by the Federation of Societies for Coatings Technology, 492 Norristown Rd., Blue Bell, PA 19422.