Designation: D6266 – 00a (Reapproved 2011)

Standard Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released From Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)[1]

This standard is issued under the fixed designation D6266; 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 describes the determination of the amount of volatile organic compound (VOC) released from applied waterborne automotive coatings that is available for delivery to a VOC control device. The determination is accomplished by measuring the weight loss of a freshly coated test panel subject to evaporation or drying and by analysis of the VOC or water content in the coating.

1.2 This test method is applicable to the VOC released from application and baking operations after the paint has been applied in a simulation of a production process, or in an actual production facility.

1.3 Symbols and calculations from several other methods that determine VOC: Practice D3960, EPA 450/3-88-018 and EPA 450/3-84-019 have been incorporated into this test method. The majority of symbols and calculations used in this test method are unique because this test method deals uniquely with differences in weight of applied paint samples that have been subject to drying, curing or solvent addition.

NOTE 1—Training and knowledge of the product being evaluated are essential for obtaining meaningful data from this test method. It is recommended that several practice runs be performed, and the laboratories repeatability evaluated before performing this test on the test samples.

1.4 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of whoever uses this standard to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to its use.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D343 Specification for 2-Ethoxyethyl Acetate (95% Grade) (Withdrawn 1980)[3]

D1186 Test Methods for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to a Ferrous Base (Withdrawn 2006)[3]

D1193 Specification for Reagent Water

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

D2369 Test Method for Volatile Content of Coatings

D2697 Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings

D3960 Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings

D4017 Test Method for Water in Paints and Paint Materials by Karl Fischer Method

E145 Specification for Gravity-Convection and Forced-Ventilation Ovens

E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method

2.2 *U.S. EPA Standards:*[4]

EPA 450/3-88-018 (Dated December, 1988) Environmental Protection Agency Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light Duty Truck Topcoat Operations. This protocol describes procedures for determining VOC emission reduction credit in abatement processes.

EPA Federal Reference Method 24 - (Ref. 40CFR, part 60, Appendix A) Determination of Volatile Matter Content,

[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 D01.21 on Chemical Analysis of Paints and Paint Materials.

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[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.

[3] The last approved version of this historical standard is referenced on www.astm.org.

[4] Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, http://www.access.gpo.gov.

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