Designation: D 5200 – 92 (Reapproved 1997)ε1

AMERICAN SOCIETY FOR TESTING AND MATERIALS
100 Barr Harbor Dr., West Conshohocken, PA 19428
Reprinted from the Annual Book of ASTM Standards. Copyright ASTM

# Standard Test Method for Determination of Weight Percent Volatile Content of Solvent-Borne Paints in Aerosol Cans[1]

This standard is issued under the fixed designation D 5200; 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.

ε[1] NOTE—Editorial changes were made in the footnotes in September 1997.

## 1. Scope

1.1 This test method is for the determination of the weight percent volatile organic compounds of solvent-borne paints in aerosol cans. It offers a unique way to obtain paint specimens from aerosol cans.

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.* A specific hazard statement is given in Note 1.

## 2. Referenced Documents

2.1 *ASTM Standards:*

E 145 Specification for Gravity-Convection and Forced-Ventilation Ovens[2]

E 180 Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals[3]

2.2 *Other Standard:*

Method 35 Determination of Percent Volatile Organic Compounds (VOC) in Solvent Based Aerosol Paints[4]

## 3. Summary of Test Method

3.1 A designated quantity from an aerosol coating is sprayed into an adapter glass tube assembly and heated in an oven at 110 ± 5°C for 60 min. The percent volatile is calculated from the loss in weight.

## 4. Significance and Use

4.1 This test method is the procedure of choice for determining the volatile content in aerosol coatings under specified test conditions modeled after Method 35[4]. The inverse value, nonvolatile, is used to determine the weight percent solids content. This information is useful to the paint producer, user, and to environmental interests for determining the grams of volatile organic compounds per gram of solids emitted from aerosol cans.

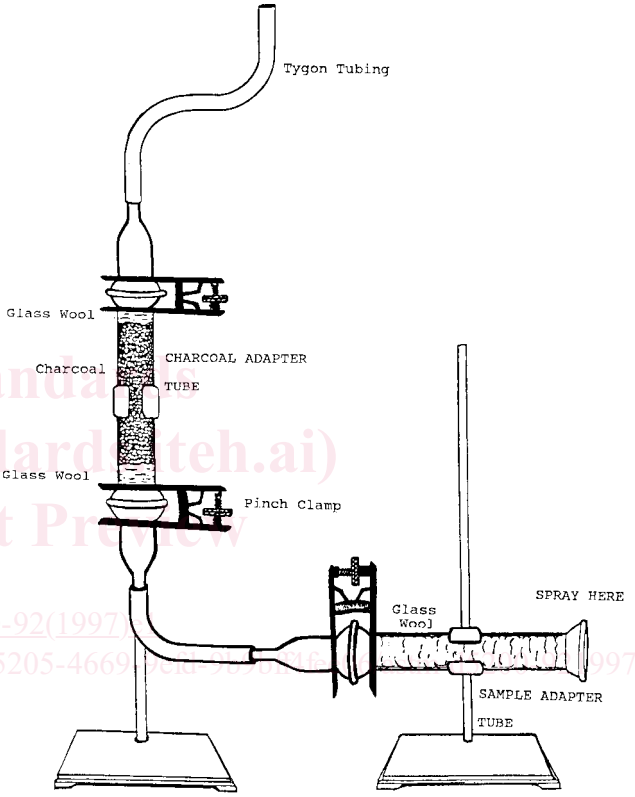


FIG. 1 Adapter Glass Tube Assembly

## 5. Apparatus

5.1 *Adapter Glass Tube Assembly*, (Fig. 1).

5.1.1 *Sample Adapter Tube*, straight connecting with 35/25 spherical joints. Loosely fill with glass wool and precondition for 30 min in an oven at 110 ± 5°C and store in a dessicator prior to use.[5,6]

[1] This test method is under the jurisdiction of ASTM Committee D-1 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.

Current edition approved May 15, 1992. Published July 1992. Originally published as D 5200 – 91. Last previous edition D 5200 – 91.

[2] *Annual Book of ASTM Standards*, Vol 14.02.

[3] *Annual Book of ASTM Standards*, Vol 15.05.

[4] Bay Area Air Quality Management District, (BAAQMD) *Manual of Procedures*, Vol III, 939 Ellis St., San Francisco, CA 94109.

[5] The sole source of supply of the adapter tube, No. 5035-35 known to the committee at this time is Ace Glass Inc., P.O. Box 688, 1430 Northwest Blvd., Vineland, NJ 08360.