



Designation: D 2190 – 97 (Reapproved 2001)

Standard Specification for Vinyl Acetate¹

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1. Scope

1.1 This specification covers vinyl acetate.

1.2 For specific hazard information and guidance, see the supplier's Material Safety Data Sheet for materials listed in this specification.

2. Referenced Documents

2.1 ASTM Standards:

D 268 Guide for Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint and Related Coatings and Materials²

D 1078 Test Method for Distillation Range of Volatile Organic Liquids²

D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)²

D 1364 Test Method for Water in Volatile Solvents (Fischer Reagent Titration Method)²

D 2086 Test Method for Acidity in Vinyl Acetate and Acetaldehyde²

D 2191 Test Method for Acetaldehyde Content of Vinyl Acetate²

D 2193 Test Method for Hydroquinone in Vinyl Acetate²

D 4052 Test Method for Density and Relative Density of Liquids by Digital Density Meter³

E 1 Specification for ASTM Thermometers⁴

E 300 Practice for Sampling Industrial Chemicals⁵

2.2 U.S. Federal Standard:

PPP-C-2020 Chemicals, Liquid, Dry, and Paste: Packaging of⁶

3. Sampling

3.1 Sample the material in accordance with Practice E 300.

4. Properties

4.1 The vinyl acetate shall conform to the following requirements:

Distillation range, °C	71.8 to 73.0
Apparent specific gravity, 20/20°C	0.9335 to 0.9345
Color (HQ grade only), Pt-Co scale, max	5
Water content, weight %, max	0.05
Acetaldehyde content, weight %, max	0.02
Acidity, as acetic acid, weight %, max	0.005
Inhibitor content (HQ)	A

^A As agreed upon between the purchaser and the manufacturer.

5. Test Methods

5.1 The properties enumerated in this specification shall be determined in accordance with the following ASTM methods:

5.1.1 *Apparent Specific Gravity*—Determine the apparent specific gravity by any convenient method that is accurate to the fourth decimal place, the temperature of both specimen and water being 20°C. (See Guide D 268 or Test Method D 4052.)

5.1.2 *Color*—Test Method D 1209.

5.1.3 *Distillation Range*—Test Method D 1078, using an ASTM Solvents Distillation Thermometer 39C having a range from 48 to 102°C, and conforming to the requirements in Specification E 1.

5.1.4 *Water*—Test Method D 1364.

5.1.5 *Acetaldehyde*—Test Method D 2191.

5.1.6 *Acidity*—Test Method D 2086.

5.1.7 *Inhibitor Content*—Test Method D 2193.

6. Packaging and Package Marking

6.1 Package size shall be agreed upon between the purchaser and the supplier.

6.2 Packaging shall conform to applicable carrier rules and regulations or, when specified, shall conform to Fed. Spec. PPP-C-2020.

7. Keywords

7.1 vinyl acetate

¹ This specification is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.35 on Solvents, Plasticizers, and Chemical Intermediates.

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² *Annual Book of ASTM Standards*, Vol 06.04.

³ *Annual Book of ASTM Standards*, Vol 05.02.

⁴ *Annual Book of ASTM Standards*, Vol 14.03.

⁵ *Annual Book of ASTM Standards*, Vol 15.05.

⁶ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094.