Designation: D 4835 – 03

Standard Specification for Propylene Glycol Monomethyl Ether Acetate[1]

This standard is issued under the fixed designation D 4835; 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 specification covers propylene glycol monomethyl ether acetate (PMA).

NOTE 1—Propylene glycol monomethyl ether acetate (PMA) is a mixture of 1-methoxy-2-acetoxypropane and 2-methoxy-1-acetoxypropane.

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

1.3 The following applies to all specified limits in this standard; for purposes of determining conformance with this standard, an observed value or a calculated value shall be rounded off "to the nearest unit" in the last right-hand digit used in expressing the specification limit, in accordance with the rounding-off method of Practice E 29.

1.4 For specific hazard information and guidance, consult the supplier's Material Safety Data Sheet for materials listed in this standard.

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D 1078 Test Method for Distillation Range of Volatile Organic Liquids

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

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

D 1613 Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products

D 4773 Test Method for Purity of Propylene Glycol Monomethyl Ether, Dipropylene Glycol Monomethyl Ether, and Propylene Glycol Monomethyl Ether Acetate

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

E 300 Practice for Sampling Industrial Chemicals

2.2 *U.S. Federal Specification:*[3]

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

3. Properties

3.1 Propylene glycol monomethyl ether acetate (PMA) shall conform to the following requirements:

Purity, min, weight %	99
Color, platinum-cobalt scale, max	15
Water, max, weight %	0.05
Distillation range, °C:	
Initial boiling point, min	140
Dry boiling point, max	150
Acidity (free acid as acetic acid), max, weight %	0.02[A]
Glycol ether, max, weight %	0.5

[A] Equivalent to 0.2 mg of potassium hydroxide (KOH) per gram of specimen.

4. Sampling

4.1 The material shall be sampled in accordance with Practice E 300.

5. Test Methods

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

5.1.1 *Gas Chromatographic Method*—Test Method D 4773.

5.1.2 *Color*—Test Method D 1209.

5.1.3 *Water*—Test Method D 1364.

5.1.4 *Acidity*—Test Method D 1613.

5.1.5 *Distillation Range*—Test Method D 1078.

6. Packaging and Package Marking

6.1 Package size shall be as 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 PM acetate; propylene glycol monomethyl ether acetate; solvent

[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] 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] Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098.

***A Summary of Changes section appears at the end of this standard.**