

ANSI/AWWA **C217-23**
(Revision of ANSI/AWWA C217-16)

AWWA Standard

Microcrystalline Wax and Petrolatum Tape Coating Systems for Steel Water Pipe and Fittings

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American Water Works
Association



AWWA Standard

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Foreword

This foreword is for information only and is not a part of ANSI/AWWA C217.

I. Introduction.

I.A. *Background.* This standard was developed to provide information on cold-applied petrolatum tape coatings and petroleum wax tape coatings for external use on special sections, connections, and fittings for buried or submerged steel water pipelines. The latest edition of the standard (2016) was updated to provide a more accurate description of the tape made with microcrystalline wax and petrolatum.

I.B. *History.* Development of this standard was authorized by the American Water Works Association (AWWA) Standards Council on Nov. 3, 1985. The first edition was approved by the AWWA Board of Directors on June 21, 1990. Subsequent revisions to ANSI/AWWA C217 were prepared by the AWWA Standards Committee and approved on June 17, 1995; Jan. 24, 1999; Jan. 18, 2004; Jan. 25, 2009; and Jan. 16, 2016. This edition was approved on Jan. 12, 2021.

II. Special Issues.

II.A. *Advisory Information on Product Application.* This standard defines the performance of cold-applied petrolatum tape and petroleum wax tape coatings establishing the quality desired for long-term protection and prevention of corrosion. It applies to the exterior coating of steel water pipelines for underground and underwater installation under normal conditions. It is based on previous experience but is not designed for unqualified use under all conditions. The advisability of its use for any installation must be reviewed by the purchaser. If an extended period of aboveground storage of coated pipe is anticipated, the material's ability to resist degradation by ultraviolet light and other atmospheric and environmental conditions should be considered.

III. **Use of This Standard.** It is the responsibility of the user of an AWWA standard to determine that the products described in that standard are suitable for use in the particular application being considered.

III.A. *Purchaser Options and Alternatives.* The following items should be provided by the purchaser.

1. Standard used, that is, ANSI/AWWA C217, Microcrystalline Wax and Petrolatum Tape Coating Systems for Steel Water Pipe and Fittings, of latest revision.

* American National Standards Institute, 25 West 43rd Street, Fourth Floor, New York, NY 10036.

2. Any exceptions to the standard that may be required.
3. Expected aboveground exposure time (foreword, Section II.A).
4. Description and dimensions of each type of special section for each type of exterior protection.

- a. Normal or average conditions.
- b. Unusual conditions (Sec. 1.1.1).

5. Physical properties of primer and coating (Table 1).
6. Coating-system thickness (Sec. 4.3.3.4).
7. Surface preparation (Sec. 4.4.1).
8. Tape coating repair (Sec. 4.7).
9. Testing (Sec. 5.2).
10. Inspection (Sec. 5.4).
11. Packaging and shipping (Sec. 6.2).
12. Affidavit of compliance, if required (Sec. 6.3).

III.B. *Modification to Standard.* Any modification to the provisions, definitions, or terminology in this standard must be provided by the purchaser.

IV. Major Revisions. Major revisions made to the standard in this edition include the following:

1. Added a new Sec. 1.1.3 to the Scope for substrates other than carbon steel.
2. In Sec. 3: Definitions, “Applicator” was added.
3. Sec. 4 Headings were revised to be consistent with AWWA standardized wording and headings.
4. Sec. 4.1 Equipment was revised to be consistent with the updated wording in other steel pipe coating standards.
5. Sec. 4.2 Material and Workmanship was revised to be consistent with the updated wording in other steel pipe coating standards and sections on safety and personnel were added.
6. Sec. 4.4 Surface preparation was revised to establish consistent language between similar AWWA steel pipe coating standards and to remove redundant language already included in the referenced SSPC standards.
7. Moved Tables from Sec. 4.3 to Sec. 5 to be consistent with other AWWA standards.
8. Sec. 4.6 Coating Fittings and Specials was added.
9. Sec. 4.4.4 was moved to its own Sec. 4.7 Coating Repair.
10. Sec. 4.8 Field joints—Welded and Non-Welded was added.
11. Sec. 4.5 Field Procedures was moved to Sec. 4.9.

12. Table 1 Properties of primer and coating section was modified to add profiling mastic.

13. Table 1 Properties with the cone penetration maximum, was reduced from 0.98 in to 0.89 in.

14. Table 1 Tape Coating properties, breaking strength minimum was added.

15. The previous Table 2 requirement for microcrystalline wax or petrolatum content, by weight, was combined into Table 1.

16. Previous Table 3 Prequalification Requirements of Tape was renamed Table 2.

17. Table 4 was deleted since the item on thickness is covered in Sec. 5.5.2 Primer coverage.

18. Sec. 5.5.3 Electrical continuity inspection was updated to include an item on repair of defects.

19. Sec. 6.2 Packaging and Shipping was revised for consistency with other steel pipe coating standards.

V. Comments. If you have any comments or questions about this standard, please call AWWA Engineering and Technical Services at 303.794.7711, FAX at 303.795.7603; write to the department at 666 West Quincy Avenue, Denver, CO 80235-3098; or email at standards@awwa.org.

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ANSI/AWWA C217-23
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AWWA Standard

Microcrystalline Wax and Petrolatum Tape Coating Systems for Steel Water Pipe and Fittings

SECTION 1: GENERAL

Sec. 1.1 Scope

This standard establishes minimum requirements for microcrystalline wax and petrolatum tape coating systems for steel water pipe and fittings.

This standard describes exterior coatings that consist of cold-applied microcrystalline wax or petrolatum primers and tapes and their applications to special sections, connections, and fittings to be used with buried, submerged, and aboveground steel water pipelines. The primers and tapes are not intended for use with steel joints or sections of steel pipe where coatings of cement mortar or concrete are applied directly onto the bare steel pipe. These coatings may be field- or shop-applied according to the provisions of this standard.

1.1.1 *Conditions not described in this standard.* This standard does not describe the additional materials and procedures that may be required for difficult conditions, such as those encountered in building some submarine lines, casing pipe, river crossings, and lines that are in rocky areas or in severe soil stress. Consult the manufacturer for the additional materials and procedures that may be required for these conditions. These materials may not be described in this standard.