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American Association State
Highway and Transportation Officials Standard
AASHTO No.: M 202

Standard Specification for Steel Sheet Piling[1]

This standard is issued under the fixed designation A 328/A 328M; 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.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope*

1.1 This specification covers carbon steel sheet piling of structural quality for use in the construction of dock walls, sea walls, cofferdams, excavations, and like applications (see Specification A 572/A 572M).

1.2 When the steel is to be welded, it is presupposed that a welding procedure suitable for the grade of steel and intended use or service will be utilized. See Appendix X3 of Specification A 6/A 6M for information on weldability.

1.3 The values stated in either inch-pound units or SI units are to be regarded as standard. Within the text, the SI units are shown in brackets. The values stated in each system are not exact equivalents; therefore, each system must be used independently of the other. Combining values from the two systems may result in nonconformance with this specification.

1.4 For sheet piling produced from coil and furnished without heat treatment or with stress relieving only, the additional requirements, including additional testing requirements and the reporting of additional test results, of Specification A 6/A 6M apply.

2. Referenced Documents

2.1 *ASTM Standards:* [2]

A 6/A 6M Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling

A 572/A 572M Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel

3. General Requirements for Delivery

3.1 Sheet piling furnished under this specification shall conform to the requirements of the current edition of Specification A 6/A 6M, for the specific sheet piling ordered, unless a conflict exists, in which case this specification shall prevail.

3.2 Coils are excluded from qualification to this specification until they are processed into finished sheet piling. Sheet piling produced from coil means sheet piling that has been cut to individual lengths from a coil. The processor directly controls, or is responsible for, the operations involved in the processing of a coil into finished sheet piling. Such operations include decoiling, leveling, hot-forming or cold-forming (if applicable), cutting to length, testing, inspection, conditioning, heat treatment (if applicable), packaging, marking, loading for shipment, and certification.

NOTE 1—For sheet piling produced from coil and furnished without heat treatment or with stress relieving only, two test results are to be reported for each qualifying coil. Additional requirements regarding sheet piling produced from coil are described in Specification A 6/A 6M.

4. Process

4.1 The steel may be made by any process that produces material meeting the requirements set forth in this specification.

5. Chemical Requirements

5.1 The heat analysis shall conform to the requirements prescribed in Table 1.

5.2 The steel shall conform on product analysis to the requirements prescribed in Table 1, subject to the product analysis tolerances in Specification A 6/A 6M.

6. Mechanical Requirements

6.1 The material, as represented by the test specimens, shall conform to the requirements as to tensile properties prescribed in Table 2.

6.2 A minimum tensile strength of 60 ksi [415 MPa] and a minimum yield point of 36 ksi [250 MPa] shall be permitted for piling sections used in the fabrication of cold-formed connections.

7. Keywords

7.1 carbon; cofferdams; dock walls; excavations; sea walls; sheet piling; steel; structural steel

[1] This specification is under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel and Related Alloys and is the direct responsibility of Subcommittee A01.02 on Structural Steel for Bridges, Buildings, Rolling Stock and Ships.

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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.

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

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TABLE 1 Chemical Requirements

Element	Composition, %
	Heat analysis
Phosphorus, max	0.035
Sulfur, max	0.04
Copper (when specified), min	0.20

TABLE 2 Tensile Requirements

Tensile strength, min, ksi [MPa][A]	65 [450]
Yield point, min, ksi [MPa]	39 [270]
Elongation in 8 in. [200 mm], min, %[B]	17
Elongation in 2 in. [50 mm], min, %	20

[A] Prior to A 328/A 328 – 05, the minimum tensile strength was 70 ksi [485 MPa].
[B] See Elongation Requirement Adjustments in the Tension Tests section of Specification A 6/A 6M. See Specimen Orientation in the Tension Tests section of Specification A 6/A 6M.

SUPPLEMENTARY REQUIREMENTS

The following supplementary requirement shall apply only when specified in the purchase order:

S99. Interlock Strength

S99.1. The minimum strength of the interlocked joint required for certain services may be specified for certain sheet piling sections subject to specific agreement between the material purchaser and the manufacturer.

SUMMARY OF CHANGES

Committee A01 has identified the location of selected changes to this standard since the last issue (A 328/A 328M – 05) that may impact the use of this standard. (Approved March 1, 2007)

(1) Delete unecessary references to ASTM standards in 2.
(2) Deleted Appurtenant Materials Section 4.
(3) Deleted Appurtenant Materials Specifications Table 1.

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