



STEEL SHEET PILING

GENERAL

Steel Sheet Piling shall be rolled from carbon structural steel and shall meet the requirements of [Article 4167](#) of the Standard Specifications and the requirements of ASTM A 328 / A 328 M and / or rolled from high strength low alloy columbium-vanadium structural steel meeting the requirements of ASTM A 572 / A 572 M Grade 50 (345) and shall also conform to the requirements of ASTM A 6 / A 6 M and the requirements of [Article 2501](#) and [4167](#) of the Standard specifications.

Steel Sheet Piling shall be of the interlocking type with section modules not less than that specified on the design drawings. Unless otherwise specified, sheet piling web thickness cannot be less than 3/8" thick (10mm) and the section modulus as specified in the contract document. Steel sheet piling shall be rolled from materials melted and manufactured in the USA.

Note: Coils are excluded from qualification to the requirements of ASTM A 328 / A 328 M until processed into finished sheet piling (meaning decoiling, leveling, hot forming or cold forming, conditioning, heat treatment, cutting to length, testing, marking, and certifications)

Unless otherwise specified appurtenant materials shall conform to the following standards:

- | | |
|-------------------------------|--|
| A. Plates or structural shape | ASTM A 36 / A 36M |
| B. Rivets | ASTM A 502 Grade 1 or 2 |
| C. Bolts | ASTM A 307 Grade A or
ASTM F 568, Class 4-6 |
| D. High strength bolts | ASTM A 325 / A 325 M |
| E. Nuts | ASTM A 563 / A 563 M DH, Heavy Hex, Class 2 B |

Splicing / Welding Steel Sheet Piling

When steel sheet piling is to be welded, a Weld Procedure Specification (WPS) shall be required and shall be pre-approved prior to welding. Welding shall be performed by a certified welder.

For Welding and pre-heat requirements, please refer to [IM 558](#)

Note: Consult Appendix X-3 of ASTM A 6 / A 6M for specific information on weldability.

Among other considerations:

- Actual production joint restraint / Base metal thickness
- Filler metal and base metal strength compatibility
- Preheat and interpass temperatures
- Heat input

Steel sheet piling shall not be accepted in the field from unapproved sources and without a mill test report, proper identification showing heat number, number of pieces, project number, county, design number, and contractor's name.

Steel sheet piling meeting the requirements of ASTM A 328 shall have a minimum tensile strength of 65 ksi (415 MPa) and a minimum yield point of 39 ksi (270 MPa). Elongation in 8 inches (200 mm) shall be 17% (min) and elongation in 2 inches (50 mm) shall be 20% (min).

Steel sheet piling meeting the requirements of ASTM A 572 Grade 50 shall have a minimum tensile strength of 65 ksi and a minimum yield of 50 ksi. Elongation in 8 inch shall be minimum of 18% and elongation in 2 inches shall have an elongation of 21% (minimum).

Chemical requirements of all sheet piling shall meet the requirements specified in ASTM A 328 / A 328 M and / or the chemical requirements specified in ASTM A 572 / A 572 M.

ACCEPTANCE

Acceptance for incorporation into a project shall be from an approved source prior to the letting.

The manufacturer and / or contractor shall furnish an identification report for each shipment to a project. The identification list shall include the project number and the design number. The number of individual pieces in the shipment shall be identified by heat number, size, and length.

Steel sheet piling shall be free of injurious defects, discontinuity or irregularity, shall be uniform in thickness. Web thickness shall not be less than 0.375 inches (9.52 mm) thick.

Steel sheet piling shall be of the interlocking type. The minimum strength of the interlocked joint shall be as specified in the design drawings.

Certification Statement (Sample)

We hereby certify that the contents of this report are accurate. All test results and fabrication performed by this material manufacturer are in compliance with the requirements of ASTM A 328 or A 572 Grade 50 and the cross sectional dimensions of ASTM A 6 / A6M. We also certify that this material is melted and manufactured in the USA.

Signed _____
Authorized Representative

Signed _____
Notarized by Notary Public

Acceptance shall also be based upon a completed steel sheet piling identification report ([Appendix C](#)) completed by the project inspector. Copies of the certified mill test report for each heat number shall be included with the report. One copy with the attachments shall be forwarded to the District Materials Engineer.