

Highlights of AWS D1.3

AWS D1.3-Structural Welding Code-Sheet Steel

- 1.1 This welding code covers arc welding of structural sheet/ strip steels, including cold formed members which are equal to or less than 3/16 in (0.188 in/ 4.8 mm) in nominal thickness.
- 1.2 Sheet Steel Base Metal, shown in Table 1.2 as well:
- Zinc-Coated (Galvanized) by Hot-Dip Process, A653 SQ Grades 33, 37, 40, and 80
 - ASTM A1011 SS, Hot-Rolled Steel Sheet and Strip.
 - ASTM A606, Hot-Rolled and Cold-Rolled, HSLA Steel Sheet and Strip.
 - ASTM A1011 HSLAS Grade 45, 50, 55, 60, 65, and 70, Hot-Rolled or Cold-Rolled, HSLA Steel Sheet and Strip.
 - ASTM A611 Grade A, B, C, D, and E, Cold-Rolled Sheet.
- 1.2.3 Minimum Yield Point:
- The provisions of this code are intended for use with sheet steel having a minimum specified yield point equal to or less than 80, 000 psi (550 MPa).
- 1.3.1 GMAW for short-circuiting transfer is acceptable.
- 1.4.1 Table 1.2 "Matching Filler Metal Requirements" provide a weld joint with strengths matching that of the base metal.

Prequalification of WPS:

- 3.0 In order for a WPS (Welding Procedure Specification) to be prequalified, conformance with all of the applicable requirements of section 3 shall be required.
- The provisions of section 3 apply only to welded connections between sheet steel and sheet steel or sheet steel to a supporting structural member with a base-metal thickness equal to or less than 3/16 in (5 mm).
- 3.1.1 Joint Details Requirements:
- Conformance with Figures shown on section 3 only:
 - Figures 3.2A, 3.2B, 3.2C Prequalified Fillet
 - Figures 3.3A, 3.3B, 3.3C, 3.3D Prequalified PJP Groove
 - Figures 3.1A, 3.1B Prequalified CJP Groove
 - Use one of the processes, SMAW, GMAW, GTAW, or FCAW (in all position).
 - Use of matching filler metal from Table 1.2
- 6 Weld Acceptance Criteria, specified on this section.

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