


**AWS B2.2/B2.2M:2010**  
**An American National Standard**



# **Specification for Brazing Procedure and Performance Qualification**



**American Welding Society**

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**AWS B2.2/B2.2M:2010**  
**An American National Standard**

**Approved by the**  
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**Specification for**  
**Brazing Procedure and**  
**Performance Qualification**

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Prepared by the  
American Welding Society (AWS) B2 Committee on Procedure and Performance Qualification

Under the Direction of the  
AWS Technical Activities Committee

Approved by the  
AWS Board of Directors

**Abstract**

This specification provides the requirements for qualification of brazing procedure specifications, brazers, and brazing operators for manual, mechanized, and automatic brazing. The brazing processes included are torch brazing, furnace brazing, diffusion brazing, resistance brazing, dip brazing, infrared brazing, and induction brazing. Base metals, brazing filler metals, brazing fluxes, brazing atmospheres, and brazing joint clearances are also included.



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# Specification for Brazing Procedure and Performance Qualification

## 1. Scope

This specification provides the requirements for qualification of Brazing Procedure Specifications (BPSs). This specification also provides requirements for the performance qualification of brazers and brazing operators. This specification is intended for use where referenced by a product standard or contract document.

Employers shall be responsible for the brazing done by their organization, including the use of qualified brazing procedures, qualified brazers, and qualified brazing operators. It is the Employer's responsibility to assure that Brazing Procedure Specifications meet any additional requirements of the Referencing Document. Each Employer shall maintain the applicable Brazing Procedure Specifications, Brazing Procedure Qualification Records (BPQRs), and Brazing Performance Qualification Records during the period of their use.

When not otherwise specified by the Referencing Document, the edition of this specification to be used shall be established in accordance with the following: (1) editions may be used at any time after the effective date of issue; (2) the latest edition of this document should be used for new contracts; (3) editions established by contract date may be used during the entire term of the contract, or the provisions of later editions may be used when agreed upon by the contracting parties.

This document is intended primarily for use with the following brazing processes:

- (1) Torch Brazing (TB)
- (2) Furnace Brazing (FB)
- (3) Induction Brazing (IB)
- (4) Resistance Brazing (RB)
- (5) Dip Brazing (DB)
- (6) Infrared Brazing (IRB)
- (7) Diffusion Brazing (DFB)

This standard makes use of both U.S. Customary Units and the International System of Units (SI). The latter are shown within brackets ([ ]) or in appropriate columns in tables and figures. The measurements may not be exact equivalents; therefore, each system must be used independently.

Safety and health issues and concerns are beyond the scope of this standard and therefore are not fully addressed herein. Safety and health information is available from other sources, including, but not limited to, ANSI Z49.1, *Safety in Welding, Cutting, and Allied Processes*, and applicable federal, state, and local regulations.

**1.1 Base Metals.** The grouping of base metals by Base Metal Number (BM No.) in Table B.1 has been made on the basis of metallurgical compatibility, chemical composition, and brazeability to decrease the number of required brazing qualifications. The grouping does not imply that base metals may be indiscriminately substituted within the same BM No. without consideration of their applicability. For some materials or combinations of materials, additional tests may be required by the procuring activity, the Referencing Document, or the design engineer.