CSA W48:23

Filler metals and allied materials for metal arc welding

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Preface

This is the fifth edition of CSA W48, *Filler metals and allied materials for metal arc welding*. It supersedes the previous editions published in 2018, 2014, 2006, and 2001.

Filler metals standards are intended to provide a generic method of classification and evaluation that allows the end user to select appropriate welding consumables for a given welding process and product or application. The procedures and tests set out in this Standard, when correctly followed, are designed to produce a consistent product with test results that are as reproducible as possible.

The following are the major changes to this edition:

a) the reference to AWS A5.10/A5.10M has been added for the classification of aluminum GTAW and GMAW electrodes;
b) all specifications and classifications related to carbon and low-alloy steel SMAW electrodes have been replaced by references to AWS A5.1/A5.1M and A5.5/A5.5M;
c) all specifications and classifications related to SAW carbon and low-alloy electrodes/fluxes have been replaced by references to AWS A5.17/A5.17M and AWS A5.23/A5.23M;
d) updates to Clauses regarding packaging and marking have been made and two new Clauses added, one for technical data sheets (TDS) and the second for decertified products; and
e) Annexes have been updated and consolidated, providing information on packaging, storage, and conditioning of electrodes (Annex B); general information and an explanation of the classification system (Annex C); descriptions and intended uses of the welding filler metals and allied materials (Annexes D and E); information on diffusible hydrogen (Annex F); and information on certification (Annex G).

The Standard has also been rewritten in such a manner to facilitate ease of use and future revisions with respect to adoption of other regional and international standards. During preparation of this revision, close liaison was maintained between AWS and ISO to create a robust Canadian Standard supporting global efforts towards standard harmonization while satisfying the specific and unique technical requirements of Canadian industry.

This Standard was prepared by the Technical Committee on Welding Filler Metals, under the jurisdiction of the Strategic Steering Committee on Construction and Infrastructure, and has been formally approved by the Technical Committee.

Notes:

1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
3) *This Standard was developed by consensus, which is defined by* CSA Policy governing standardization — Code of good practice for standardization *as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
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