International Standard

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Welding — Grouping system for metallic materials

Soudage — Système de groupement des matériaux métalliques

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 10, *Quality management in the field of welding*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 121, *Welding and allied processes,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition of ISO 15608 cancels and replaces the fourth edition of ISO/TR 15608:2017, which has been technically revised.

The main changes are as follows:

— changed from a Technical Report to an International Standard;

— title modified as a result of the change from a TR;

— cobalt alloys have been added;

— new general subclause added as 4.1 and subsequent subclauses renumbered;

— Table 1 revised;

— editorial revisions;

— spelling of pearlite corrected.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html. Official interpretations of ISO/TC 44 documents, where they exist, are available from this page: https://committee.iso.org/sites/tc44/home/interpretation.html.

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Welding — Grouping system for metallic materials

1 Scope

This document specifies a uniform system for grouping materials for welding purposes. This document can also be applied for other purposes, such as heat treatment, forming and non-destructive testing.

This document is applicable to grouping systems for the following standardized materials:

— steels;

— aluminium and its alloys;

— copper and its alloys;

— nickel and its alloys;

— titanium and its alloys;

— zirconium and its alloys;

— cast irons;

— cobalt alloys.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Grouping systems

4.1 General

Materials assigned to a group in ISO/TR 20172 (European materials), ISO/TR 20173 (American materials) and ISO/TR 20174 (Japanese materials) are considered assigned to those groups by this document. For materials that are not assigned to a group, the criteria of this document apply.

The standardized materials can be grouped as given below where the chemical compositions are given in mass fraction per cent.

— steels – Table 1;

— aluminium and its alloys – Table 2;

— copper and its alloys – Table 3;

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