



SLOVENSKI STANDARD
oSIST prEN ISO 14344:2024
01-marec-2024

**Dodajni in potrošni materiali za varjenje - Nabava dodatnih materialov in praškov
(ISO/DIS 14344:2024)**

Welding consumables - Procurement of filler materials and fluxes (ISO/DIS 14344:2024)

Schweißzusätze - Beschaffung von Schweißzusätzen (ISO/DIS 14344:2024)

Produits consommables pour le soudage - Approvisionnement en matériaux d'apport et flux (ISO/DIS 14344:2024)

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Welding consumables — Procurement of filler materials and fluxes

Produits consommables pour le soudage — Approvisionnement en matériaux d'apport et flux

ICS: 25.160.20

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 documents 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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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 3, *Welding consumables*.

Any feedback, question or request for official interpretation related to any aspect of this document should be directed to the Secretariat of ISO/TC 44/SC 3 via your national standards body. A complete listing of these bodies can be found at www.iso.org/members.html. Official interpretations, where they exist, are available from this page: <https://committee.iso.org/sites/tc44/home/interpretation.html>.

This third edition cancels and replaces the second edition (ISO 14344:2010), which has been technically revised.

The main changes compared to the previous edition are as follows:

- to be added closer to publication

Introduction

In production, the components of welding consumables are divided into discrete, predetermined quantities so that satisfactory tests with a sample from that quantity will establish that the entire quantity meets specification requirements. These quantities, known by such terms as heats, lots, blends, batches and mixes, vary in size according to the manufacturer. For identification purposes, each manufacturer assigns a unique designation to each quantity. This designation usually consists of a series of numbers or letters, or combinations thereof, which will enable the manufacturer to determine the date and time (or shift) of manufacture, the raw materials used, and the details of the procedures used in producing the welding consumable. This designation stays with the welding consumable and can be used to identify the material later, in those cases in which identification is necessary.

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Welding consumables — Procurement of filler materials and fluxes

1 Scope

This document specifies tools for communication between a purchaser and a supplier of welding consumables within quality systems, such as those based upon ISO 9001.

This document, together with an applicable welding consumable standard (ISO or other), provides a method for preparing the specific details needed for welding consumable procurement which consists of:

- a) the welding consumable classification (selected from the applicable welding consumable standard);
- b) the lot classification (selected from [Clause 4](#));
- c) the testing schedule (selected from [Clause 5](#)).

Selection of the specific welding consumable classification, lot classification, and testing schedule depends upon the requirements of the application for which the welding consumable is being procured.

This document does not apply to non-consumable electrodes or shielding gases.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 544, *Welding consumables – Technical delivery conditions for filler materials and fluxes – Type of product, dimensions, tolerances and markings* EN ISO 14344:2024

ISO 10474, *Steel and steel products — Inspection documents*

EN 10204, *Metallic products – Types of inspection documents*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 544 and the following apply.

ISO and IEC maintain terminological 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/>

3.1

controlled chemical composition

<covered or tubular electrodes> covering or core ingredients consisting of one or more wet mixes, dry batches, or dry blends that are subjected to sufficient tests to ensure that all within the lot are equivalent

Note 1 to entry: These tests shall include chemical analysis, the results of which shall fall within the manufacturer's acceptance limits. The identification of the test procedure and the results of the tests shall be recorded.

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3.2

controlled chemical composition

<solid welding consumables and solid source materials> materials used to fabricate welding consumables (core rod for covered electrodes and strip or tube for tubular wire or rod) consisting of one or more heats that are subjected to sufficient tests to ensure that all within the lot are equivalent

Note 1 to entry: These tests shall include chemical analysis, the results of which shall fall within the manufacturer's acceptance limits. The identification of the test procedure and the results of the tests shall be recorded.

Note 2 to entry: Mill coils from mills that do not permit spliced-coil practice shall be sampled on at least one end. Coils from mills that permit spliced-coil practice with a maximum of one splice per coil shall be sampled on both ends. Coils with more than one splice are not permitted.

3.3

dry batch

quantity of dry ingredients mixed at one time in one mixing vessel

Note 1 to entry: Liquid(s), such as binders, when added to a dry batch, produce a wet mix. A dry batch can be divided into homogeneous smaller quantities, in which case addition of the liquid(s) produces a corresponding number of smaller wet mixes.

3.4

dry blend

two or more dry batches from which quantities of each are combined proportionately, then mixed in a mixing vessel to produce a larger quantity in which the ingredients are as uniformly dispersed as they would have been had the entire quantity been mixed together at one time in one large mixer

Note 1 to entry: A dry blend, as in the case of a dry batch, can be used singly or divided into smaller quantities, in which case addition of liquid(s) produces a corresponding number of smaller wet mixes.

3.5

heat

<open hearth, electric arc, basic oxygen, argon-oxygen processes> material obtained from one furnace melt, where slag-metal or gas-metal reactions occur in producing the specified alloy

Note 1 to entry: For solid welding consumables and solid source materials used to fabricate welding consumables (core rod for covered electrodes and strip or tube for tubular wire or rod) the specific definition is dependent on the method of melting and refining of the metal.

Note 2 to entry: Neither mill splicing of coils from different heats nor coils containing transition heats is permitted.

3.6

heat

<induction melting in controlled atmosphere or vacuum> uninterrupted series of melts from one controlled batch of metals and alloying ingredients in one melting furnace under the same melting conditions, each melt conforming to the chemical composition range approved by the purchaser of the material

Note 1 to entry: For solid welding consumables and solid source materials used to fabricate welding consumables (core rod for covered electrodes and strip or tube for tubular wire or rod) the specific definition is dependent on the method of melting and refining of the metal.

Note 2 to entry: Neither mill splicing of coils from different heats nor coils containing transition heats is permitted.