



ISO 14343

Welding consumables — Wire electrodes, strip electrodes, wires and rods for arc welding of stainless and heat resisting steels — Classification

Produits consommables pour le soudage — Fils-électrodes, électrodes en feuillard, fils d'apport et baguettes de soudage pour le soudage à l'arc des aciers inoxydables et des aciers résistant aux températures élevées — Classification

**Fourth edition
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This fourth edition cancels and replaces the third edition (ISO 14343:2017), which has been technically revised.

The main changes are as follows:

- addition of 19 L Mo Nb Si Ti, 18 L Ti for the alloy type 439, 27 7 5 N L and 29 8 2 N L in [Table 1](#) and [Table A.1](#);
- adjustment of chemical compositions in [Table 1](#);
- change of [Table 1](#) footnote c on the symbol classifications in parentheses;
- Addition of G classification in [Table 1](#) for System B and new footnote;
- revision of Clause 10, Example 5.

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This document provides a classification system for wire electrodes, strip electrodes, wires and rods for arc welding of stainless and heat resisting steels. It recognizes that there are two somewhat different approaches in the global market to classifying a given welding consumable, and allows for either or both to be used, to suit a particular market need. Many, but not all, commercial products addressed by this document can be classified using both approaches, and suitable products can also be marked.

System A uses the nominal composition approach with designators to indicate the principal alloying elements at their nominal levels, in a particular sequence, and which is sometimes followed by chemical element symbols to indicate compositional modifications to the original grade. System B uses the alloy type approach with three- or four-digit designations for certain grades, sometimes followed by one or more chemical element symbols indicating compositional modifications of the grade. In both approaches, classification is based upon the chemical composition of the product. In many cases, a given product can be classified using both approaches, because the composition ranges, although slightly different, overlap to a considerable extent between the two.

For stainless steel welding consumables, there is no unique relationship between the product form (wire electrode, strip electrode, wire or rod) and the welding process used (gas-shielded metal arc welding, gas tungsten arc welding, plasma arc welding, submerged arc welding, electroslag welding and laser beam welding). For this reason, the wire electrodes, strip electrodes, wires or rods can be classified on the basis of any of the above product forms and can be used, as appropriate, for more than one of the above processes.

Classification in accordance with system A, by nominal composition, was based mainly on EN 12072 which has been withdrawn and replaced by this document. Classification in accordance with system B, by alloy type, is mainly based upon standards used around the Pacific Rim.