

Third edition
2023-04

Welding consumables — Solid wire electrodes, solid strip electrodes, solid wires and solid rods for fusion welding of nickel and nickel alloys — Classification

Produits consommables pour le soudage — Fils-électrodes pleins, feuillets pleins, fils pleins et baguettes pleines pour le soudage par fusion du nickel et des alliages de nickel — Classification



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Foreword

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This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 3, *Welding consumables*, 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 third edition cancels and replaces the second edition (ISO 18274:2010), which has been technically revised.

The main changes are as follows:

- new restricted alloy symbols, commonly used in the USA, added to [Table 1](#) and [Table C.1](#);
- alloy symbols updated in [Table 1](#) and [Table C.1](#);
- a new EXAMPLE 4 added to [Clause 11](#) for a Z classification.

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Introduction

For nickel welding consumables, there is no unique relationship between the product form, for example:

- solid wire electrode;
- solid strip electrode;
- solid wire;
- solid rod;

and the welding process used, for example:

- gas-shielded metal arc welding;
- gas tungsten arc welding;
- plasma arc welding;
- submerged arc welding;
- strip overlay welding;
- laser welding;
- other welding processes.

Consequently, solid wire electrodes, solid strip electrodes, solid wires or solid rods can be classified on the basis of any of these product forms and can be used, as appropriate, for more than one of these processes (see also [Annex B](#)).

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