

Welding consumables - Solid wire electrodes, solid wires and rods for fusion welding of titanium and titanium alloys - Classification

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 24034:2010 sisaldab Euroopa standardi EN ISO 24034:2010 ingliskeelset teksti.

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English Version

**Welding consumables - Solid wire electrodes, solid wires and
rods for fusion welding of titanium and titanium alloys -
Classification (ISO 24034:2010)**

Produits consommables pour le soudage - Fils-électrodes
pleins, fils pleins et baguettes pleines pour le soudage par
fusion du titane et des alliages de titane - Classification
(ISO 24034:2010)

Schweißzusätze - Massivdrahtelektroden, Massivdrähte
und Massivstäbe zum Schmelzschiessen von Titan und
Titanlegierungen - Einteilung (ISO 24034:2010)

This European Standard was approved by CEN on 30 September 2010.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

The text of ISO 24034:2010 has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 24034:2010 by Technical Committee CEN/TC 121 "Welding" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2011, and conflicting national standards shall be withdrawn at the latest by April 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of ISO 24034:2010 has been approved by CEN as a EN ISO 24034:2010 without any modification.

Introduction

This International Standard proposes a classification in order to designate solid wire electrodes, solid wires and rods in terms of their chemical composition.

There is no unique relationship between the product form (solid wire electrodes, solid wires or rods) and the welding process used (gas-shielded metal arc welding, tungsten inert gas arc welding, plasma arc welding or laser beam welding). For this reason, solid wire electrodes, solid wires and rods may be classified in terms of their chemical composition.

In this International Standard, the symbol of the welding process is not used, because

- a) different joining processes are performed with the same chemical component consumable;
- b) the producer is not able to determine the process symbol before shipping.

Also, it should be noted that the mechanical properties of all-weld metal test specimens or welded joints produced by welding consumables will vary from those obtained in production joints because of differences in welding procedure and the base-metal alloy. For this reason, the mechanical properties of all-weld metal or welded joints for titanium-welding consumables are not specified in this classification.

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

1 Scope

This International Standard specifies requirements for the classification of solid wire electrodes, solid wires and rods for fusion welding of titanium and titanium alloys. The classification is based on their chemical composition.

The compositions of solid wire electrodes for metal inert gas (MIG) welding are the same as solid wire electrodes, solid wires and rods for tungsten inert gas (TIG) arc welding, plasma arc welding, laser beam welding, and other fusion welding processes.

2 Normative references

The following referenced documents are indispensable for the application 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*

ISO 14344, *Welding consumables — Procurement of filler materials and fluxes*

ISO 80000-1:2009, *Quantities and units — Part 1:General*

3 Classification

The classification is divided into two parts:

- a) the first part gives a symbol indicating the product to be identified, see 4.1;
- b) the second part gives a symbol indicating the chemical composition of the solid wire electrodes, solid wires and rods, see Table 1.

4 Symbols and requirements

4.1 Symbol for the product

The symbol for the solid wire electrodes, solid wires and rods shall be S.