



# SLOVENSKI STANDARD SIST EN ISO 16834:2012

01-september-2012

Nadomešča:

SIST EN ISO 16834:2007

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**Dodajni materiali za varjenje - Žične elektrode, žice, palice in čisti vari za varjenje visokotrdnostnih jekel v zaščiti plinov - Razvrstitev (ISO 16834:2012)**

Welding consumables - Wire electrodes, wires, rods and deposits for gas-shielded arc welding of high strength steels - Classification (ISO 16834:2012)

Schweißzusätze - Drahtelektroden, Drähte, Stäbe und Schweißgut zum Schutzgasschweißen von hochfesten Stählen - Einteilung (ISO 16834:2012)

Produits consommables pour le soudage - Fils-électrodes, fils, baguettes et dépôts pour le soudage à l'arc sous protection gazeuse des aciers à haute résistance - Classification (ISO 16834:2012)

**Ta slovenski standard je istoveten z: EN ISO 16834:2012**

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**ICS:**

25.160.20 Potrošni material pri varjenju Welding consumables

**SIST EN ISO 16834:2012**

**en,fr**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 16834**

May 2012

ICS 25.160.20

Supersedes EN ISO 16834:2007

English Version

**Welding consumables - Wire electrodes, wires, rods and  
deposits for gas shielded arc welding of high strength steels -  
Classification (ISO 16834:2012)**

Produits consommables pour le soudage - Fils-électrodes,  
fils, baguettes et dépôts pour le soudage à l'arc sous flux  
gazeux des aciers à haute résistance - Classification (ISO  
16834:2012)

Schweißzusätze - Drahtelektroden, Drähte, Stäbe und  
Schweißgut zum Schutzgasschweißen von hochfesten  
Stählen - Einteilung (ISO 16834:2012)

This European Standard was approved by CEN on 13 April 2012.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Turkey and United Kingdom.



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

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

**Contents**

Page

Foreword.....3

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## Foreword

This document (EN ISO 16834:2012) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with 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 November 2012, and conflicting national standards shall be withdrawn at the latest by November 2012.

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.

This document supersedes EN ISO 16834:2007.

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, Turkey and the United Kingdom.

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**Endorsement notice**

The text of ISO 16834:2012 has been approved by CEN as a EN ISO 16834:2012 without any modification.

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# INTERNATIONAL STANDARD

**ISO**  
**16834**

Second edition  
2012-05-01

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## **Welding consumables — Wire electrodes, wires, rods and deposits for gas shielded arc welding of high strength steels — Classification**

*Produits consommables pour le soudage — Fils-électrodes, fils,  
baguettes et dépôts pour le soudage à l'arc sous flux gazeux des aciers  
à haute résistance — Classification*

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## Contents

Page

Foreword .....	iv
Introduction.....	v
1 Scope.....	1
2 Normative references.....	1
3 Classification .....	2
4 Symbols and requirements .....	3
4.1 Symbol for the product/process .....	3
4.2 Symbol for strength and elongation properties of all-weld metal.....	3
4.3 Symbol for impact properties of all-weld metal .....	4
4.4 Symbol for shielding gas.....	4
4.5 Symbol for the chemical composition of wire electrodes, wires and rods .....	5
4.6 Symbol for condition of post-weld heat treatment .....	5
5 Mechanical tests.....	9
5.1 Preheating and interpass temperatures.....	9
5.2 Welding conditions and pass sequence.....	10
5.3 Post-weld heat-treated condition.....	10
6 Chemical analysis .....	11
7 Rounding procedure .....	11
8 Retest.....	11
9 Technical delivery conditions.....	11
10 Examples of designation .....	12
Bibliography.....	14

## ISO 16834:2012(E)

## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 16834 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 3, *Welding consumables*.

This second edition cancels and replaces the first edition (ISO 16834:2006), which has been technically revised.

The main changes compared to the previous edition are:

- a) in 4.4, the separation between the A and B side has been eliminated;
- b) in Table 3B, the chemical composition has been changed for 4M31 and N5M3;
- c) footnote a to Table 3B has been redrafted to give more precision;
- d) the designation examples in Clause 10 have been modified.

Requests for official interpretations of any aspect of this International Standard 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](http://www.iso.org).

## Introduction

This International Standard recognizes that there are two somewhat different approaches in the global market to classifying a given wire electrode, wire, rod or deposit, and allows for either or both to be used to suit a particular market need. Application of either type of classification designation (or of both where suitable) identifies a product as classified in accordance with this International Standard. The classification in accordance with system A is mainly based on EN 12534:1999<sup>[1]</sup>. The classification in accordance with system B is mainly based upon standards used around the Pacific Rim. Future revisions will aim to merge the two systems into a single classification system.

This International Standard provides a classification for the designation of wire electrodes, wires, rods and deposits in terms of their chemical composition and, where required, in terms of the yield strength, tensile strength and elongation of the all-weld metal. The ratio of yield to tensile strength of weld metal is generally higher than that of the parent metal. Users should note that matching weld metal yield strength to parent metal yield strength does not necessarily ensure that the weld metal tensile strength matches that of the parent material. Thus, where the application requires matching tensile strength, selection of the consumable should be made by reference to column 3 of Table 1A or 1B, as appropriate.

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