Welding consumables - Wire electrodes, wires and rods for welding of aluminium and aluminium alloys - Classification

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 18273:2004 sisaldab Euroopa standardi EN ISO 18273:2004 ingliskeelset teksti. Käesolev dokument on jõustatud 18.06.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 18273:2004 consists of the English text of the European standard EN ISO 18273:2004. This document is endorsed on 18.06.2004 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This standard specifies requirements for classification of solid wires and rods for fusion welding of aluminium and aluminium alloys. The classification of the solid wires and rods is based on their chemical composition.	**Scope:** This standard specifies requirements for classification of solid wires and rods for fusion welding of aluminium and aluminium alloys. The classification of the solid wires and rods is based on their chemical composition.

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Võtmesõnad: chemical analysis and testin, classifications, metal bars, rod electrode, rods, stainless steels, steel welding, steels, submerged arc welding, symbols, testing, tungsten inert-gas welding, welding, welding electrodes, welding filler metals, wire electrodes, wires

EUROPEAN STANDARD
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EUROPÄISCHE NORM

EN ISO 18273

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English version

Welding consumables

Wire electrodes, wires and rods for welding of aluminium and aluminium alloys

Classification

(ISO 18273 : 2004)

Produits consommables pour le soudage – Fils-électrodes, fils et baguettes pour le soudage de l'aluminium et les alliages d'aluminium – Classification (ISO 18273 : 2004)

Schweißzusätze – Massivdrähte und -stäbe zum Schmelzschweißen von Aluminium und Aluminiumlegierungen – Einteilung (ISO 18273 : 2004)

This European Standard was approved by CEN on 2003-10-10.

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Contents

Foreword

This document (EN ISO 18273:2004) has been prepared by Technical Committee CEN/TC 121 “Welding”, the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 44 “Welding and allied processes”.

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 September 2004, and conflicting national standards shall be withdrawn at the latest by September 2004.

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

Introduction

For aluminium welding consumables there is no unique relationship between the product form (solid wire or rod) and the welding process used (e.g. gas shielded metal arc welding, gas tungsten arc welding, plasma arc welding or other welding processes). For this reason the solid wires or rods may 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.

1 Scope

This standard specifies requirements for classification of solid wires and rods for fusion welding of aluminium and aluminium alloys. The classification of the solid wires and rods is based on their chemical composition.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN ISO 544, *Welding consumables – Technical delivery conditions for welding filler metals – Type of product, dimensions, tolerances and markings (ISO 544:2003).*

ISO 31-0:1992, *Quantities and units – Part 0: General principles.*

ISO 14344, *Welding and allied processes – Flux and gas shielded electrical welding processes – Procurement guidelines for consumables.*

3 Classification

The classification is divided into two parts:

a) the first part indicates the product form being solid wires or rods, see 4.1;

b) the second part gives a numerical symbol indicating the chemical composition of the solid wire or rod, see Table 1.

The aluminium or aluminium alloy chemical composition limits specified are strictly identical to those registered to the Aluminum Association, Washington DC 20006, USA, for the corresponding alloys.

4 Symbols and requirements

4.1 Symbols for the product form

The symbol for the solid wire and rod shall be S.

NOTE One product form may be used for more than one welding process.

4.2 Symbol for the chemical composition

The numerical symbol in Table 1 indicates the chemical composition of a solid wire and rod, determined under conditions given in clause 6.

NOTE In addition the chemical symbol may be used.

5 Mechanical properties of the weld metal

Mechanical properties of the weld metal are not part of the classification.