SLOVENSKI STANDARD
SIST EN ISO 14372:2003

01-maj-2003

Dodajni materiali za varjenje - Ugotavljanje obļ utljivosti na navlaģenje elektrod za roļ no obloļ no varjenje z merjenjem difuzijskega vodika (ISO 14372:2000)

Welding consumables - Determination of moisture resistance of manual metal arc welding electrodes by measurement of diffusible hydrogen (ISO 14372:2000)

Schweißzusätze - Bestimmung der Feuchteresistenz von Elektroden für das Lichtbogenhandschweißen durch Messung des diffusiblen Wasserstoffs (ISO 14372:2000)

Produits consommables pour le soudage - Détermination de la reprise d'humidité des électrodes utilisées en soudage manuel a l'arc avec électrode enrobée, par mesurage de l'hydrogene diffusible (ISO 14372:2000)

Ta slovenski standard je istoveten z: **EN ISO 14372:2001**

ICS:

25.160.20 Potrošni material pri varjenju Welding consumables

SIST EN ISO 14372:2003 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English version

Welding consumables - Determination of moisture resistance of manual metal arc welding electrodes by measurement of diffusible hydrogen (ISO 14372:2000)

Produits consommables pour le soudage - Détermination de la reprise d'humidité des électrodes utilisées en soudage manuel à l'arc avec électrode enrobée, par mesurage de l'hydrogène diffusible (ISO 14372:2000)

Schweißzusätze - Bestimmung der Feuchteresistenz von Elektroden für das Lichtbogenhandschweißen durch Messung des diffusiblen Wasserstoffs (ISO 14372:2000)

This European Standard was approved by CEN on 11 October 2001.

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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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Foreword

The text of the International Standard from Technical Committee ISO/TC 44 " Welding and allied processes" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DS.

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 2002, and conflicting national standards shall be withdrawn at the latest by April 2002.

NOTE FROM CMC The foreword is susceptible to be amended on reception of the German language version. The confirmed or amended foreword, and when appropriate, the normative annex ZA for the references to international publications with their relevant European publications will be circulated with the German version.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 14372:2000 has been approved by CEN as a European Standard without any modification.

INTERNATIONAL STANDARD

ISO 14372

First edition
2000-09-15

Welding consumables — Determination of moisture resistance of manual metal arc welding electrodes by measurement of diffusible hydrogen

Produits consommables pour le soudage — Détermination de la reprise d'humidité des électrodes utilisées en soudage manuel à l'arc avec électrode enrobée, par mesurage de l'hydrogène diffusible

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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 3.

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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 14372 was prepared in collaboration with the International Institute of Welding which has been approved by the ISO Council as an international standardizing body in the field of welding.

Introduction

This test method is based on procedures originally put forward within Sub-Commission IIA of the IIW by the delegation from Argentina. It has subsequently been evaluated in a round robin exercise within Subcommission IIA, and the present document, developed by the United Kingdom delegation, takes into account the results of that work.

Welding consumables — Determination of moisture resistance of manual metal arc welding electrodes by measurement of diffusible hydrogen

1 Scope

This test method is intended to enable reliable classification, by 24 h exposure to humid air and subsequent diffusible hydrogen testing, of manual metal arc electrode coatings as standard (ST) or moisture resistant (MR).

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 3690:—[1], *Welding and allied processes — Determination of hydrogen content in ferritic steel arc weld metal*.

3 Principle

Weld deposit hydrogen analysis using standard techniques on samples deposited using electrodes exposed to a moist atmosphere [27 °C, 80 % RH[2]]. It is the exposure of the electrodes which is the main subject of this International Standard. After drying (if applicable) the electrodes are exposed to an air atmosphere of controlled temperature and humidity by enclosing them in a box containing a saturated solution of ammonium sulfate.

4 Equipment

4.1 Humidity box, of acrylic, or similar inert material. It consists of a box within which test electrodes, a thermometer and protecting tubes (maximum ~1,5 × the overall diameter of the electrode, and appropriate length to fit) for holding the electrodes after exposure, can be suspended over a saturated solution of ammonium sulfate. See Figure 1.

4.2 Temperature control cabinet, capable of maintaining the temperature at 27 °C ± 1 °C. Good results have been achieved using a draught-proof enclosure heated by low power (40 W) light bulbs, controlled by a calibrated thermostat, with a fan for circulating air to maintain uniform air temperature.

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1) To be published. (Revision of ISO 3690:1977)

2) It is not necessary to measure relative humidity within the humidity box. The test conditions are the temperature and the presence of the saturated salt bath. Well-established physical principles relate the relative humidity to these two conditions. It is essential that any attempt to measure relative humidity, if used, does not cause air circulation within the box.