

### SLOVENSKI STANDARD SIST EN 13479:2005

01-marec-2005

#### Dodajni materiali za varjenje - Splošni produktni standard za dodajne materiale in praške za talilno varjenje kovinskih materialov

Welding consumables - General product standard for filler metals and fluxes for fusion welding of metallic materials

Schweißzusätze - Allgemeine Produktnorm für Zusätze und Pulver zum Schmelzschweißen von metallischen Werkstoffen PREVIEW

Produits consommables pour le soudage - Norme produit générale pour les métaux d'apport et les flux pour le soudage par fusion de matériaux métalliques

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Ta slovenski standard je istoveten z: EN 13479-2005

#### ICS:

25.160.20 Potrošni material pri varjenju Welding consumables

SIST EN 13479:2005

en

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

### EN 13479

December 2004

ICS 25.160.20

English version

### Welding consumables - General product standard for filler metals and fluxes for fusion welding of metallic materials

Produits consommables pour le soudage - Norme produit générale pour les métaux d'apport et les flux pour le soudage par fusion de matériaux métalliques Schweißzusätze - Allgemeine Produktnorm für Zusätze und Pulver zum Schmelzschweißen von metallischen Werkstoffen

This European Standard was approved by CEN on 12 November 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austra, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom. SIST EN 13479:2005

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

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

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Ref. No. EN 13479:2004: E

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### Foreword

This document (EN 13479:2004) has been prepared 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 June 2005, and conflicting national standards shall be withdrawn at the latest by June 2005.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

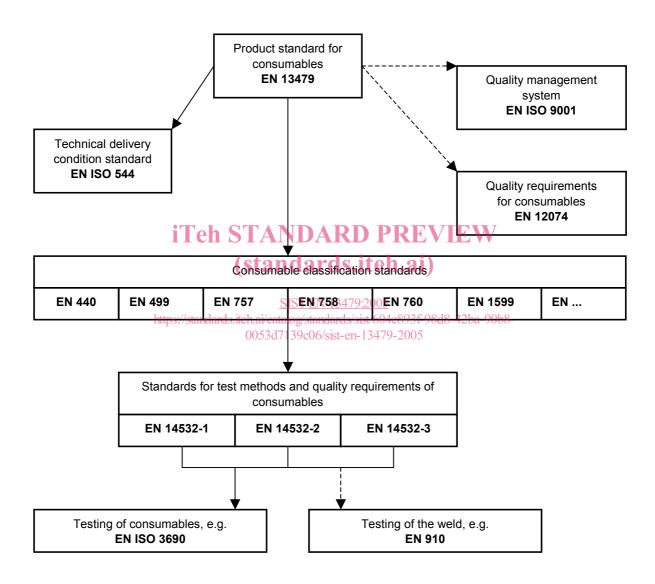
According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania,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

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### Introduction

This document is part of a family comprising the following:



#### 1 Scope

This document specifies general delivery conditions for filler metals and fluxes for fusion welding of metallic materials. This document does not apply to auxiliaries such as shielding gases. This document is intended for application in a number of situations:

- The manufacturer should use this document to establish the product's characteristics.
- This document may be used for contractual purposes, as a reference document.
- This document should also be used as a reference document for product conformity assessment.

#### 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.

EN 760, Welding consumables — Fluxes for submerged arc welding — Classification

EN 10204, Metallic products — Types of inspection documents

EN 12074, Welding consumables — Quality requirements for manufacture, supply and distribution of consumables for welding and allied processes

EN 14532-1:2004, Welding consumables — Test methods and quality requirements — Part 1: Primary methods and conformity assessment of consumables for steel, nickel and nickel alloys

EN 14532-2, Welding consumables — Test methods and quality requirements — Part 2: Supplementary methods and conformity assessment of consumables for steel, nickel and nickel alloys

EN 14532-3:2004, Welding consumables — Test methods and quality requirements — Part 3: Conformity assessment of wire electrodes, wires and rods for welding of aluminium alloys

EN ISO 544, Welding consumables — Technical delivery conditions for welding filler materials — Type of product, dimensions, tolerances and markings (ISO 544:2003)

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

#### product specification

manufacturer's document which specifies requirements for a welding consumable including, as applicable, chemical composition and mechanical properties of deposited metal, coating type, flux composition, range of welding parameters, and the designation according to the appropriate classification standard

#### 3.2

#### manufacturer

party who has legal responsibility for the finished quality of the product placed upon the market

#### 3.3

#### deposited metal

filler metal that has been added during welding

#### 4 Manufacturing process

The manufacturing processes used are at the discretion and responsibility of the manufacturer.

#### **5** Requirements

#### 5.1 General

Products claiming compliance with this document shall meet the requirements of this Clause.

#### **5.2 Product specification**

The product specification shall include the following information, as a minimum:

- manufacturer's brand name for the consumable;
- dimension;
- technical delivery conditions in accordance with EN ISO 544;
- description of the covering, flux or filling material in terms of those major constituents which define the characteristics of the consumable (e.g. oxides, carbonates, fluorides and metals);
- classification of the consumable according to the relevant standard;
- information to the user on the intended use in accordance with the welding consumable classification standard. (standards.iteh.ai)

#### 5.3 Dimensions and shape

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Tolerances on dimensions and shape shall be in accordance with EN 180 544-42ba-90b8-0053d7139c06/sist-en-13479-2005

#### 5.4 Mechanical properties

The mechanical properties shall be in accordance with the specific requirements in the relevant welding consumable classification standards (see Introduction). In cases where the requirements for the specific property are not defined in the classification standard, the relevant sub-clause in EN 14532-1, EN 14532-2 or EN 14532-3 shall be used. Tests on butt welds are not required by this document, except in the case of consumables classified for single or two run welding technique.

#### 5.5 Chemical composition

Chemical composition shall be in accordance with the appropriate welding consumable classification standard.

#### 5.6 Durability

Deposited metals are deemed durable when the consumables comply with the requirements of this standard.

#### 5.7 Dangerous substances

Deposited metals shall not release any dangerous substances in excess of the maximum permitted levels specified in a relevant European Standard for the material or permitted in the national regulations of the member state of destination.

#### 6 Testing, assessment and sampling methods

#### 6.1 Dimensions and shape

Measurement of diameter shall be carried out with a micrometer screw gauge with a range of 0 to 10 mm and of length if applicable with a ruler, or other suitable apparatus. Five measurements shall be made within the smallest packaging unit taken at random from a batch, heat or lot. The accuracy shall be at least 0,01 mm for diameter measurement and 1 mm for length measurement.

#### 6.2 Mechanical properties

The mechanical properties shall be verified according to the specific requirements in the relevant welding consumable classification standards. In cases where the requirements for the specific property are not defined in the welding consumable classification standard, the relevant sub-clause in EN 14532-1, EN 14532-2 or EN 14532-3 shall be used.

#### 6.3 Chemical composition

Chemical analysis shall be carried out using appropriate established published methods. At least three determinations shall be made on each sample. The mean value shall meet the requirement.

#### **Evaluation of conformity** 7

#### 7.1 General

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The compliance of the products with the requirements of this document shall be demonstrated by:

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- Initial type testing; https://standards.iteh.ai/catalog/standards/sist/604e893f-98d8-42ba-90b8-

- Factory production control by the manufacturer 6/sist-en-13479-2005

#### 7.2 Initial type testing

#### 7.2.1 General

Initial type testing shall be performed to show conformity with this document. Tests previously performed in accordance with the provisions of this document (same product, same characteristic(s), test method, sampling procedure, system of attestation of conformity, etc.) may be taken into account. In addition, initial type testing shall be performed at the beginning of the production or at the beginning of a new method of production (where this may affect the stated properties).

All characteristics in Clause 5 shall be subject to initial type testing, with the exception of release of dangerous substances, which can be assessed indirectly by controlling the content of the substance concerned.

#### 7.2.2 Initial type test program

The initial type testing programme shall be carried out in accordance with EN ISO 544 and, as relevant, in accordance with the welding consumable classification standard, EN 14532-1, EN 14532-2 or EN 14532-3.

#### 7.2.3 Documentation

The results of the initial test programme shall be recorded and kept in a technical file for a period of at least 5 years after the date when the last product to which the test programme refers to was delivered.