SLOVENSKI STANDARD
oSIST prEN ISO 544:2017

01-februar-2017

Dodajni materiali za varjenje - Tehnični dobavni pogoji za dodajne in potrošne materiale in praške - Vrsta izdelka, izmere, tolerance in označevanje (ISO/DIS 544:2016)

Welding consumables - Technical delivery conditions for filler materials and fluxes - Type of product, dimensions, tolerances and markings (ISO/DIS 544:2016)

Schweißzusätze - Technische Lieferbedingungen für Schweißzusätze und Pulver - Art des Produktes, Maße, Grenzabmaße und Kennzeichnung (ISO/DIS 544:2016)

Produits consommables pour le soudage - Conditions techniques de livraison des matériaux d'apport et des flux - Type de produit, dimensions, tolérances et marquage (ISO/DIS 544:2016)

Ta slovenski standard je istoveten z: **prEN ISO 544**

ICS:

25.160.20 Potrošni material pri varjenju Welding consumables

oSIST prEN ISO 544:2017 **en,fr,de**

DRAFT INTERNATIONAL STANDARD

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ISO/TC **44**/SC **3**

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Welding consumables — Technical delivery conditions for filler materials and fluxes — Type of product, dimensions, tolerances and markings

Produits consommables pour le soudage — Conditions techniques de livraison des matériaux d'apport et des flux — Type de produit, dimensions, tolérances et marquage

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ISO/CEN PARALLEL PROCESSING

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is Technical Committee ISO/TC 44, Welding and allied processes, Subcommittee SC 3, Welding consumables..

This fourth edition cancels and replaces the third edition (ISO 544:2003), which has been technically revised.

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.

Welding consumables – Technical delivery conditions for filler materials and fluxes – Type of product, dimensions, tolerances and markings

1 Scope

This International Standard specifies technical delivery conditions for filler materials and fluxes for fusion welding.

This International Standard does not apply to other auxiliary materials such as shielding gases.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 14174, *Welding consumables — Fluxes for submerged arc welding and electroslag welding — Classification*

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

ISO 80000-1:2009, Quantities and units — Part 1: General. Corrected by ISO 80000-1:2009/Cor 1:2011

3 Terms and definitions

No terms and definitions are listed in this document.

4 Product type and welding process

The types of products covered by this International Standard and the welding process(es) in which they are used are listed in Table 1.

NOTE The corresponding reference numbers for each welding process in accordance with ISO 4063:2009[1] are given for information.

5 Dimensions and tolerances

5.1 Solid wires and solid wire electrodes, tubular cored wires and tubular cored electrodes, solid and tubular cored rods and covered electrodes

Dimensions and tolerances for solid wires and solid wire electrodes, tubular cored wires and tubular cored electrodes, solid and tubular cored rods and covered electrodes are given in Table 2

Table 1 — Product type and welding process

Product type	Welding process(es)[a]
Cored strip electrode	EG, ES, S
Covered electrode	E
Solid rod	W, O, P
Solid strip electrode	ES, S
Solid wire	W, P, L, EB
Solid wire electrode	EG, ES, G, S
Tubular cored rod	W, O, P
Tubular cored wire	L, W
Tubular cored electrode	EG, ES, P, S, T
Thin foil	L, EB

[a] The corresponding reference numbers for each welding process in accordance with ISO 4063:2009[1] are:

— E Manual metal arc welding (111);

— EB Electron beam welding (51);

— EG Electrogas welding (73);

— ES Electroslag welding (72);

— G MIG/MAG welding with solid wire electrode (131, 135);

— L Laser welding (52);

— O Oxyfuel gas welding (31);

— P Plasma arc welding (15);

— S Submerged arc welding (12);

— T Metal arc welding with tubular cored electrode with a gas shield (132, 133, 136 and 138) or without a gas shield (114);

— W Gas tungsten arc welding (14).

5.2 Solid strip electrodes

Dimensions and tolerances for solid strip electrodes are given in Table 3.

5.3 Cored strip electrodes and thin foils

Dimensions and tolerances for cored strip electrodes and thin foils shall be in accordance with the relevant application standard.

Table 2 — Dimensions and tolerances for wires, rods, and covered electrodes

Dimensions in millimetres

Nominal diameter	Solid wires and solid wire electrodes[a]		Tubular cored wires and tubular cored electrodes[a]	Solid and tubular cored rods[a]			Covered electrodes[ab]			
	Welding process									
	G, W, L, EB	S, ES, EG	T, S, EG	W, O, P			E			
	Diameter tolerance	Diameter tolerance	Diameter tolerance	Diameter tolerance	Length	Length tolerance	Diameter of core wire	Diameter tolerance	Length	Length tolerance
0,5	+0,01 −0,03	—	—	—	—	—	—	—	—	—
0,6			+0,02 −0,05	±0,1	500 ≤ *l* ≤ 1 000	±5				
0,8	+0,01 −0,04									
0,9										
1,0										
1,2		±0,04								
1,4										
1,6			+0,02 −0,06				1,6	±0,06	200 ≤ *l* ≤ 350	±10
1,8							2,0			
2,0							2,5			
2,4							2,6			
2,5										
2,8	+0,01 −0,07						—	—	—	—
3,0		±0,06								
3,2			+0,02 −0,07				3,2	±0,10	275 ≤ *l* ≤ 450[c]	±10
4,0							4,0			
5,0	—		+0,02 −0,08				5,0			
6,0							6,0			
8,0							8,0	±0,1		

[a] Other dimensions may be agreed. For intermediate dimensions, tolerances given in this table shall be used.

[b] Dimensions for the core wire.

[c] For special cases (e.g. gravity welding), length, $l < 1\,000$ mm