

SLOVENSKI STANDARD SIST EN ISO 15614-7:2017

01-januar-2017

Nadomešča:

SIST EN ISO 15614-7:2007

Specifikacija in kvalifikacija varilnih postopkov za kovinske materiale - Preskus varilnega postopka - 7. del: Navarjanje (ISO 15614-7:2016)

Specification and qualification of welding procedures for metallic materials - Welding procedure test - Part 7: Overlay welding (ISO 15614-7:2016)

Anforderung und Qualifizierung von Schweißverfahren für metallische Werkstoffe - Schweißverfahrensprüfung - Teil 7: Auftragschweißen (ISO 15614-7:2016)

Descriptif et qualification d'un mode opératoire de soudage pour les matériaux métalliques - Epreuve de qualification d'un mode opératoire de soudage - Partie 7: Rechargement par soudage (ISO 15614-7:2016) iso-15614-7-2017

Ta slovenski standard je istoveten z: EN ISO 15614-7:2016

ICS:

25.160.10 Varilni postopki in varjenje Welding processes

SIST EN ISO 15614-7:2017 en,fr,de

SIST EN ISO 15614-7:2017

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 15614-7:2017

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN ISO 15614-7

October 2016

ICS 25.160.10

Supersedes EN ISO 15614-7:2007

English Version

Specification and qualification of welding procedures for metallic materials - Welding procedure test - Part 7: Overlay welding (ISO 15614-7:2016)

Descriptif et qualification d'un mode opératoire de soudage pour les matériaux métalliques - Épreuve de qualification d'un mode opératoire de soudage - Partie 7: Rechargement par soudage (ISO 15614-7:2016)

Anforderung und Qualifizierung von Schweißverfahren für metallische Werkstoffe - Schweißverfahrensprüfung - Teil 7: Auftragschweißen (ISO 15614-7:2016)

This European Standard was approved by CEN on 11 September 2016.

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, Former Yugoslav Republic of Macedonia, 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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN ISO 15614-7:2016 (E)

Contents	Page
European foreword	3
Annex ZA (informative) Relationship between this part of ISO 15614 and the Essential	
Requirements of EU Directive 2014/68/EU	4

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 15614-7:2017 https://standards.iteh.ai/catalog/standards/sist/0d6896c9-d783-4638-b77d-82794966047a/sist-en-iso-15614-7-2017

European foreword

This document (EN ISO 15614-7:2016) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 "Welding and allied processes" 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 April 2017, and conflicting national standards shall be withdrawn at the latest by April 2017.

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 15614-7:2007.

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(s).

For relationship with EU Directive(s), 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, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, 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 1-82794966047a/sist-en-iso-15614-7-2017

Endorsement notice

The text of ISO 15614-7:2016 has been approved by CEN as EN ISO 15614-7:2016 without any modification.

EN ISO 15614-7:2016 (E)

Annex ZA

(informative)

Relationship between this part of ISO 15614 and the Essential Requirements of EU Directive 2014/68/EU

This part of ISO 15614 has been prepared under a mandate given to CEN by the European Commission to provide a means of conforming to Essential Requirements of the New Approach Directive 2014/68/EU

Once this part of ISO 15614 is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this part of ISO 15614 given in Table ZA.1 confers, within the limits of the scope of this part of ISO 15614, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this part of ISO 15614 and Directive 2014/68/EU

Essential requirements (ERs) Clause(s)/subclause(s) of this part of ISO 15614		Qualifying remarks/notes
Annex I, 3.1.2	h ST Clauses 4 to 9 PR	Permanent joining

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard. (**standards.iten.al**)

SIST EN ISO 15614-7:2017

SIST EN ISO 15614-7:2017

INTERNATIONAL STANDARD

ISO 15614-7

Second edition 2016-10-15

Specification and qualification of welding procedures for metallic materials — Welding procedure test —

Part 7: **Overlay welding**

Teh ST Descriptif et qualification d'un mode opératoire de soudage pour les matériaux métalliques — Épreuve de qualification d'un mode Sopératoire de soudage — 1

Partie 7: Rechargement par soudage SIST EN ISO 15614-7:2017



ISO 15614-7:2016(E)

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN ISO 15614-7:2017</u> https://standards.iteh.ai/catalog/standards/sist/0d6896c9-d783-4638b77d-82794966047a/sist-en-iso-15614-7-2017



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Ch. de Blandonnet 8 • CP 401 CH-1214 Vernier, Geneva, Switzerland Tel. +41 22 749 01 11 Fax +41 22 749 09 47 copyright@iso.org www.iso.org

Co	Contents				
For	eword		v		
Intr	oductio	on	vii		
1	Scop	oe	1		
2	-	native references			
3		ns and definitions			
4	4.1	iminary welding procedure specification (pWPS)	3		
	4.1	Hardfacing	3		
_					
5					
6		piece			
	6.1	Shape and dimensions of test pieces			
		6.1.2 Corrosion resistant overlay welding and hardfacing			
		6.1.3 Intermediate layer	3		
	6.2	Welding of test pieces	5		
7	Evan	nination and testing	5		
/	7.1	Extent of examination and testing	5 5		
	7.2				
	7.3	Non-destructive testing (NDT)	6		
	7.4	Destructive testing standards.iteh.ai) 7.4.1 General	8		
		7.4.1 General	8		
		7.4.2 Macroscopic examination	9		
		7.4.3 Hardness testing TEN ISO 15614-7:2017 7.4.4 htSide bend testing atalog/standards/sist/0d6896c9-d783-4638-	9		
		7.4.2 Macroscopic examination 7.4.3 Hardness testing TEN ISO 15614-7:2017 7.4.4 Side bend testing atalog/standards/sist/0d6896c9-d783-4638- 7.4.5 Chemical analysis 6047a/sist-en-iso-15614-7-2017	10		
		7.4.6 Delta ferrite content/ferrite number (FN)	10		
	7.5	Acceptance criteria			
		7.5.1 Acceptance criteria for non-destructive testing (NDT)			
		7.5.2 Destructive testing			
	7.6	Re-testing	12		
8	Rang	ge of qualification	12		
	8.1	General			
	8.2	Qualification related to the manufacturer			
	8.3	Qualification related to the material			
		8.3.1 Parent metal 8.3.2 Parent metal thickness			
	8.4	Qualification related to the filler material/overlay			
	0.1	8.4.1 Filler material designation			
		8.4.2 Thickness of the overlay			
	8.5	Common to welding procedures			
		8.5.1 Welding process			
		8.5.2 Welding position			
		8.5.3 Type of current			
		8.5.5 Preheating temperature			
		8.5.6 Interpass temperature			
		8.5.7 Post-heating for hydrogen release	15		
		8.5.8 Post-weld heat-treatment (PWHT)			
	0.1	8.5.9 Number of layers			
	8.6	Specific to welding processes	15		

SIST EN ISO 15614-7:2017

ISO 15614-7:2016(E)

	8.6.1	Process 111 [manual metal arc welding (metal arc welding with covered electrode)]	1.5	
	8.6.2	Processes 12 (submerged arc welding) and 72 (electroslag overlay welding)15	
	8.6.3	Processes 13 [gas-shielded metal arc welding and 14 (gas-shielded arc		
		welding with non-consumable tungsten electrode)]	16	
	8.6.4	Process 15 (plasma arc welding)		
	8.6.5		16	
	8.6.6	Process 311 (oxy-acetylene welding)		
9	Welding prod	cedure qualification record (WPQR)	17	
Annex A (informative) Welding procedure qualification record form (WPQR)				
Rih	liogranhy		2.2	

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 15614-7:2017

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.

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 ISO/TC 44, Welding and allied processes, Subcommittee SC 10, Quality management in the field of welding.

This second edition cancels and replaces the first edition (ISO 15614-7:2007), which has been technically revised. b77d-82794966047a/sist-en-iso-15614-7-2017

ISO 15614 consists of the following parts, under the general title *Specification and qualification of welding procedures for metallic materials* — *Welding procedure test*:

- Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys
- Part 2: Arc welding of aluminium and its alloys
- Part 3: Fusion welding of non-alloyed and low-alloyed cast irons
- Part 4: Finishing welding of aluminium castings
- Part 5: Arc welding of titanium, zirconium and their alloys
- Part 6: Arc and gas welding of copper and its alloys
- Part 7: Overlay welding
- Part 8: Welding of tubes to tube-plate joints
- Part 10: Hyperbaric dry welding
- Part 11: Electron and laser beam welding
- Part 12: Spot, seam and projection welding
- Part 13: Upset (resistance butt) and flash welding
- Part 14: Laser-arc hybrid welding of steels, nickel and nickel alloys

ISO 15614-7:2016(E)

Requests for official interpretations of any aspect of this part of ISO 15614 should be directed to the secretariat if ISO/TC 44/SC 10 via your national standards body, a complete listing which can be found at www.iso.org.

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN ISO 15614-7:2017</u> https://standards.iteh.ai/catalog/standards/sist/0d6896c9-d783-4638b77d-82794966047a/sist-en-iso-15614-7-2017