STN

Oceľ Stanovenie obsahu vanádu Metóda plameňovej atómovej absorpčnej spektrometrie (FAAS) (ISO 9647: 2020)

STN EN ISO 9647

42 0583

Steel - Determination of vanadium content - Flame atomic absorption spectrometric method (FAAS) (ISO 9647:2020)

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/22

Obsahuje: EN ISO 9647:2022, ISO 9647:2020

Oznámením tejto normy sa ruší STN ISO 9647 (42 0519) zo septembra 1993

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN ISO 9647

March 2022

ICS 77.080.01

English Version

Steel - Determination of vanadium content - Flame atomic absorption spectrometric method (FAAS) (ISO 9647:2020)

Aciers - Détermination des teneurs en vanadium - Méthode par spectrométrie d'absorption atomique dans la flamme (SAAF) (ISO 9647:2020)

Stahl - Bestimmung des Vanadiumgehaltes - Flammen-Atomextinktionsspektrometrisches Verfahren (FAAS) (ISO 9647:2020)

This European Standard was approved by CEN on 20 March 2022.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, 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: Rue de la Science 23, B-1040 Brussels

EN ISO 9647:2022 (E)

Contents	Page
European foreword	3

EN ISO 9647:2022 (E)

European foreword

The text of ISO 9647:2020 has been prepared by Technical Committee ISO/TC 17 "Steel" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 9647:2022 by Technical Committee CEN/TC 459/SC 2 "Methods of chemical analysis for iron and steel" the secretariat of which is held by SIS.

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 2022, and conflicting national standards shall be withdrawn at the latest by September 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 9647:2020 has been approved by CEN as EN ISO 9647:2022 without any modification.

INTERNATIONAL STANDARD

ISO 9647

Second edition 2020-02

Steel — Determination of vanadium content — Flame atomic absorption spectrometric method (FAAS)

Aciers — Détermination des teneurs en vanadium — Méthode par spectrométrie d'absorption atomique dans la flamme (SAAF)





COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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 CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Fax: +41 22 749 09 47 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Coı	ntents		Page
Fore	word		iv
1	Scope		1
2	Normat	ive references	1
3	Terms and definitions		
4		le	
_	•		
5	Ü	ts	
6	6.1 A	Atomic absorption spectrometer 5.1.1 Minimum precision (see Annex C) 5.1.2 Limit of detection (see Annex C) 5.1.3 Calibration linearity (see Annex C) 5.1.4 Characteristic concentration (see Annex C)	3 3 3
	6.2 A	Ancillary equipment	
7	Samplii	ng	4
8	8.1 T 8.2 F 8.3 I 8.3 E	Test portion Slank test Determination 3.3.1 Preparation of the test solution 3.3.2 Preparation of the calibration solutions 3.3.3 Adjustment of the atomic absorption spectrometer 3.3.4 Spectrometric measurements	
9	9.1 l	Sion of results Jse of the calibration curve Jse of bracketing method	7
10	Precisio	on	8
11	Test rep	oort	9
Anno	•	mative) Additional information on the international interlaboratory test	
	•	mative) Graphical representation of precision data	
		native) Procedures for the determination of instrumental criteria	
	-	active of a roce unit care to the unit care of the same and the same a	

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.

This document was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 1, *Methods of determination of chemical composition*.

This second edition cancels and replaces the first edition (ISO 9647:1989), which has been technically revised. The main changes compared to the previous edition are as follows:

- a complete revaluation of the precision data;
- amendment of the field of application.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Steel — Determination of vanadium content — Flame atomic absorption spectrometric method (FAAS)

1 Scope

This document specifies a flame atomic absorption spectrometric method (FAAS) for the determination of the vanadium content in steel.

The method is applicable to vanadium contents between 0,01 % (mass fraction) and 0,80 % (mass fraction), provided that the tungsten content in a 1,0 g test portion is not higher than 1,0 % and/or the titanium content is not higher than 0,5 %.

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 648, Laboratory glassware — Single-volume pipettes

ISO 1042, Laboratory glassware — One-mark volumetric flasks

ISO 3696, Water for analytical laboratory use — Specification and test methods

ISO 14284, Steel and iron — Sampling and preparation of samples for the determination of chemical composition

koniec náhľadu – text ďalej pokračuje v platenej verzii STN