

SLOVENSKI STANDARD SIST EN ISO 12179:2022

01-marec-2022

Nadomešča:

SIST EN ISO 12179:2000

SIST EN ISO 12179:2000/AC:2008

Specifikacija geometrijskih veličin izdelka (GPS) - Tekstura površine: profilna metoda - Umerjanje kontaktnih (s tipalom) instrumentov (ISO 12179:2021)

Geometrical product specifications (GPS) - Surface texture: Profile method - Calibration of contact (stylus) instruments (ISO 12179:2021)

Geometrische Produktspezifikation (GPS) - Oberflächenbeschaffenheit: Tastschnittverfahren - Kalibrierung von Tastschnittgeräten (ISO 12179:2021)

Spécification géométrique des produits (GPS) - Etats de surface : Méthode du profil - Etalonnage des instruments à contact (palpeur) (ISO 12179:2021)

https://standards.iteh.ai/catalog/standards/sist/5c43e7b8-

829d-4953-8979-eff1278f84ec/sist-en-iso-12179 Ta slovenski standard je istoveten z: EN ISO 12179:2022

ICS:

17.040.30 Merila Measuring instruments17.040.40 Specifikacija geometrijskih Geometrical Product

veličin izdelka (GPS) Specification (GPS)

SIST EN ISO 12179:2022 en,fr,de

SIST EN ISO 12179:2022

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 12179:2022

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN ISO 12179

January 2022

ICS 17.040.30

Supersedes EN ISO 12179:2000, EN ISO 12179:2000/AC:2008

English Version

Geometrical product specifications (GPS) - Surface texture: Profile method - Calibration of contact (stylus) instruments (ISO 12179:2021)

Spécification géométrique des produits (GPS) - Etats de surface : Méthode du profil - Etalonnage des instruments à contact (palpeur) (ISO 12179:2021)

Geometrische Produktspezifikation (GPS) -Oberflächenbeschaffenheit: Tastschnittverfahren -Kalibrierung von Tastschnittgeräten (ISO 12179:2021)

This European Standard was approved by CEN on 27 November 2021.

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, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

829d-4953-8979-effl 278f84ec/sist-en-iso-12179-2022



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 12179:2022 (E)

Contents	Page
T	2
European foreword	

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 12179:2022

European foreword

This document (EN ISO 12179:2022) has been prepared by Technical Committee ISO/TC 213 "Dimensional and geometrical product specifications and verification" in collaboration with Technical Committee CEN/TC 290 "Dimensional and geometrical product specification and verification" the secretariat of which is held by AFNOR.

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

This document supersedes EN ISO 12179:2000.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. 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 12179:2021 has been approved by CEN as EN ISO 12179:2022 without any modification. 829d-4953-8979-eff1278f84ec/sist-en-iso-12179-2022

SIST EN ISO 12179:2022

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 12179:2022

SIST EN ISO 12179:2022

INTERNATIONAL STANDARD

ISO 12179

Second edition 2021-12

Geometrical product specifications (GPS) — Surface texture: Profile method — Calibration of contact (stylus) instruments

Spécification géométrique des produits (GPS) — État de surface:

Méthode du profil — Étalonnage des instruments à contact (palpeur)

PREVIEW (standards.iteh.ai)

SIST EN ISO 12179:2022

https://standards.iteh.ai/catalog/standards/sist/5c43e7b8-829d-4953-8979-eff1278f84ec/sist-en-iso-12179-2022



Reference number ISO 12179:2021(E)

ISO 12179:2021(E)

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 12179:2022

https://standards.iteh.ai/catalog/standards/sist/5c43e7b8-829d-4953-8979-eff1278f84ec/sist-en-iso-12179-2022



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

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 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Con	ents	Page
Forew	ord	v
Introd	uction	vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Conditions of use	3
	4.1 Components and configurations of the contact (stylus) instrument	3
	4.2 Calibration of a configuration	
	4.3 Place of calibration	
5	Measurement standards	
6	Contact (stylus) instrument metrological characteristics 6.1 General	
	6.2 Residual profile calibration	
	6.3 Vertical profile component calibration	
	6.4 Horizontal profile component calibration	6
	6.5 Profile coordinate system calibration	6
_		
7	Calibration D. D. T.	7
	7.2 Evaluation of the residual profile	7 7
	 7.2 Evaluation of the residual profile 7.3 Calibration of the vertical profile component 7.3.1 Overall objective 	7
	7.3.1 Overall objective	7
	7.3.2 Procedure 7.4 Calibration of the horizontal profile component 7.4.1 Overall objective h.ai/catalog/standards/sist/5c43e7b8-	7
	7.4 Calibration of the horizontal profile component	δ Ω
	7.4.2 8Procedure 8979 eff1278f84ec/sist-en-iso-12179-2022	8
	7.5 Calibration of the profile coordinate system	
	7.5.1 Overall objective	
	7.5.2 Procedure	
	7.6 Calibration of the total contact (stylus) instrument	
	7.6.2 Procedure	
	7.7 Other calibrations	
8	Measurement uncertainty	9
	8.1 Information from the calibration certificate for a measurement standard	9
	8.2 The uncertainty of the values measured during calibration of a measuring instrument using a measurement standard	9
9	Contact (stylus) instrument calibration certificate	10
10	General information	10
Annex	A (normative) Calibration of instruments measuring parameters of the motifs method	11
Annex	B (normative) Calibration of simplified operator instruments for the measurements of surface texture	13
Annex	C (informative) Example: roughness measurement standard parameter Ra	14
	D (informative) Concept diagram	
	E (informative) Overview of profile and areal standards in the GPS matrix model	

ISO 12179:2021(E)

Annex F (informative) Relation to the GPS matrix model	. 19
Bibliography	.20

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 12179:2022

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 of the voluntary nature of standards, 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 213, Dimensional and geometrical product specifications and verification, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 290, Dimensional and geometrical product specification and verification, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement). https://standards.iteh.ai/catalog/standards/sist/5c43e7b8-

This second edition cancels and replaces the first edition (ISO 12179:2000), which has been technically revised. It also incorporates Technical Corrigendum ISO 12179:2000/Cor. 1:2003.

The main changes to the previous edition are as follows:

— Annex C has been amended.

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.

ISO 12179:2021(E)

Introduction

This document is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO 14638). It influences chain link G of the chain of standards on profile surface texture.

The ISO GPS matrix model is given in ISO 14638, For more detailed information on the relationship of this document to the GPS matrix model, see <u>Annex F</u>. An overview of standards on profiles and areal surface texture is given in <u>Annex E</u>.

This document introduces calibration of contact (stylus) instruments as defined in ISO 3274. The calibration is carried out with the aid of measurement standards.

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 12179:2022