ICS 17.040.30 SLOVENSKÁ TECHNICKÁ NORMA Máj 2022

STN	**Geometrické špecifikácie výrobkov (GPS) Charakter povrchu: Profilová metóda Kalibrácia dotykových (hrotových) prístrojov (ISO 12179: 2021)**	**STN EN ISO 12179** 25 2324

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

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. 04/22

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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.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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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of an identical text or by endorsement, at the latest by July 2022, and conflicting national standards shall be withdrawn at the latest by July 2022.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.

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The text of ISO 12179:2021 has been approved by CEN as EN ISO 12179:2022 without any modification.

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)

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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

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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).

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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).

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.

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 Annex F. An overview of standards on profiles and areal surface texture is given in Annex E.

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

INTERNATIONAL STANDARD **ISO 12179:2021(E)**

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

1 Scope

This document specifies the calibration and adjustment of the metrological characteristics of contact (stylus) instruments for the measurement of surface texture by the profile method as defined in ISO 3274. The calibration and adjustment is intended to be carried out with the aid of measurement standards.

Annex B specifies the calibration and adjustment of metrological characteristics of simplified operator contact (stylus) instruments which do not conform with ISO 3274.

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 3274, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Nominal characteristics of contact (stylus) instruments*

ISO 5436-1:2000, *Geometrical Product Specifications (GPS) — Surface texture: Profile method; Measurement standards — Part 1: Material measures*

ISO 10012, *Measurement management systems — Requirements for measurement processes and measuring equipment*

ISO 14253-1, *Geometrical product specifications (GPS) — Inspection by measurement of workpieces and measuring equipment — Part 1: Decision rules for verifying conformity or nonconformity with specifications*

ISO 14253-2, *Geometrical product specifications (GPS) — Inspection by measurement of workpieces and measuring equipment — Part 2: Guidance for the estimation of uncertainty in GPS measurement, in calibration of measuring equipment and in product verification*

ISO 21920-2, *Geometrical product specifications (GPS) — Surface texture: Profile — Part 2: Terms, definitions and surface texture parameters*

ISO 25178-73, *Geometrical product specifications (GPS) — Surface texture: Areal — Part 73: Terms and definitions for surface defects on material measures*

ISO/IEC Guide 98-3, *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*

ISO/IEC Guide 99, *International vocabulary of metrology — Basic and general concepts and associated terms (VIM)*