



NSAI
Standards

Irish Standard
I.S. EN ISO 12179:2000

Geometrical Product Specifications (GPS) - Surface texture: Profile method - Calibration of contact (stylus) instruments (ISO 12179:2000)

I.S. EN ISO 12179:2000

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English version
Version Française
Deutsche Fassung

Geometrical Product Specifications (GPS) - Surface texture: Profile method
- Calibration of contact (stylus) instruments (ISO 12179:2000/Cor 1:2003)

Spécification géométrique des produits
(GPS) - Etat de surface: Méthode du profil -
Etalonnage des instruments à contact
(palpeur) (ISO 12179:2000/Cor 1:2003)

Geometrische Produktspezifikation (GPS) -
Oberflächenbeschaffenheit:
Tastschnittverfahren - Kalibrierung von
Tastschnittgeräten (ISO 12179:2000/Cor
1:2003)

This corrigendum becomes effective on 15 October 2008 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 15 octobre 2008 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 15. Oktober 2008 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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EN ISO 12179:2000/AC:2008 (E) **I.S. EN ISO 12179:2000/AC:2008**

Endorsement notice

The text of ISO 12179:2000/Cor.1:2003 has been approved by CEN as a European Corrigendum without any modification.



I.S. EN ISO 12179:2000/AC:2008
INTERNATIONAL STANDARD ISO 12179:2000
TECHNICAL CORRIGENDUM 1

Published 2003-12-01

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Geometrical Product Specifications (GPS) — Surface texture: Profile method — Calibration of contact (stylus) instruments

TECHNICAL CORRIGENDUM 1

Spécification géométrique des produits (GPS) — État de surface: Méthode du profil — Étalonnage des instruments à contact (palpeur)

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO 12179:2000 was prepared by Technical Committee ISO/TC 213, *Dimensional and geometrical product specifications and verification*.

Page 14, Annex C

Change the calculations of the sum-of-squares S_1 , S_2 , S_3 and S_4 as follows:

$$S_1 = 60 \bar{X}^2$$

$$S_2 = 5 \sum_{i=1}^{12} (\bar{X}_i - \bar{X})^2$$

$$S_3 = 12 \sum_{j=1}^5 (\bar{X}_j - \bar{X})^2$$

$$S_4 = \sum_{i=1}^{12} \sum_{j=1}^5 (X_{ij} - \bar{X}_i - \bar{X}_j + \bar{X})^2$$

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 12179

March 2000

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English version

**Geometrical Product Specifications (GPS) - Surface texture:
Profil method - Calibration of contact (stylus) instruments (ISO
12179:2000)**

Spécification géométrique des produits (GPS) - Etat de
surface: Méthode du profil - Etalonnage des instruments à
contact (palpeur) (ISO 12179:2000)

Geometrische Produktspezifikationen (GPS) -
Oberflächenbeschaffenheit: Tastschnittverfahren -
Kalibrierung von Tastschnittgeräten (ISO 12179:2000)

This European Standard was approved by CEN on 15 March 2000.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword

The text of the International Standard ISO 12179:2000 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 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 September 2000, and conflicting national standards shall be withdrawn at the latest by September 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

NOTE FROM CEN/CS: The foreword is susceptible to be amended on reception of the German language version. The confirmed or amended foreword, and when appropriate, the normative annex ZA for the references to international publications with their relevant European publications will be circulated with the German version.

Endorsement notice

The text of the International Standard ISO 12179:2000 was approved by CEN as a European Standard without any modification.

INTERNATIONAL STANDARD

ISO
12179

First edition
2000-03-15

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)*



Reference number
ISO 12179:2000(E)

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ISO 12179:2000(E)

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

International Standard ISO 12179 was prepared by Technical Committee ISO/TC 213, *Dimensional and geometrical product specifications and verification*.

Annexes A and B form a normative part of this International Standard. Annexes C and D are for information only.

Introduction

This International Standard is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO/TR 14638). It influences the chain link 6 of the chain of standards on roughness, waviness and primary profile.

For more detailed information on the relationship of this standard to the GPS matrix model, see annex D.

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

Geometrical Product Specifications (GPS) — Surface texture: Profile method — Calibration of contact (stylus) instruments

1 Scope

This International Standard applies to the calibration 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 is to be carried out with the aid of measurement standards.

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

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 3274:1996, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Nominal characteristics of contact (stylus) instruments*.

ISO 4287:1997, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters*.

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

ISO 10012-1:1992, *Quality assurance requirements for measuring equipment — Part 1: Metrological confirmation system for measuring equipment*.

ISO 12085:1996, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Motif parameters*.

ISO 14253-1:1998, *Geometrical Product Specifications (GPS) — Inspection by measurement of workpieces and measuring equipment — Part 1: Decision rules for proving conformance or non-conformance with specification*.

ISO/TS 14253-2:1999, *Geometrical Product Specifications (GPS) — Inspection by measurement of workpieces and measuring equipment — Part 2: Guide to the estimation of uncertainty of measurement in GPS measurement, in calibration of measuring equipment and in product verification*.

Guide to the expression of uncertainty in measurement (GUM). BIPM, IEC, IFCC, ISO, IUPAC, IUPAP, OIML, 1st edition, 1995.

International vocabulary of basic and general terms used in metrology (VIM). BIPM, IEC, IFCC, ISO, IUPAC, IUPAP, OIML, 2nd edition, 1993.

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