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

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

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 12179:2000 sisaldab Euroopa standardi EN ISO 12179:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.09.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 12179:2000 consists of the English text of the European standard EN ISO 12179:2000.</p> <p>This document is endorsed on 12.09.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> This International Standard applies to the calibration of the metrological characteristics of contact (stylus) instruments for the measurement of surface texture by the profil method as defined in ISO 3274.</p>	<p><b>Scope:</b> This International Standard applies to the calibration of the metrological characteristics of contact (stylus) instruments for the measurement of surface texture by the profil method as defined in ISO 3274.</p>
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ICS 17.040

**Võtmesõnad:** calibration, dimensions, geometrical product specifications, markings, measuring instruments, profile meters, reference sample, roughness, roughness measurement, specifications, surface condition

ICS 17.040.40

English version

Geometrical product specifications (GPS) –  
Surface texture: Profile 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 Produktspezifikation  
(GPS) – Oberflächenbeschaffenheit:  
Tastschnittverfahren – Kalibrierung  
von Tastschnittgeräten  
(ISO 12179 : 2000)

This European Standard was approved by CEN on 2000-03-15.

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.

The European Standards exist 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.

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

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

## Foreword

International Standard

ISO 12179 : 2000 Geometrical product specifications (GPS) – Surface texture: Profile method – Calibration of contact (stylus) instruments,

which was prepared by ISO/TC 213 'Dimensional and geometrical product specifications and verification' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 290 'Dimensional and geometrical product specifications and verification', the Secretariat of which is held by DIN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by September 2000 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

## Endorsement notice

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

NOTE: Normative references to international publications are listed in Annex ZA (normative).

## Contents

	Page
Foreword.....	2
Introduction.....	3
1 Scope.....	3
2 Normative references.....	3
3 Terms and definitions.....	4
4 Conditions of use.....	4
5 Measurement standards.....	5
6 Contact (stylus) instrument metrological characteristics.....	5
7 Calibration.....	8
8 Uncertainty of measurement.....	10
9 Contact (stylus) instrument calibration certificate.....	11
Annex A (normative) Calibration of instruments measuring the motifs method parameters.....	12
Annex B (normative) Calibration of simplified operator instruments for the measurements of surface texture.....	14
Annex C (informative) Example: roughness measurement standard parameter $R_a$ .....	15
Annex D (informative) Relation to the GPS matrix model.....	18
Bibliography.....	19

## 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.

## 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.