

STN	Geometrické špecifikácie výrobkov (GPS) Charakter povrchu: Plocha Časť 600: Metrologické charakteristiky pre metódy merania plošnej topografie (ISO 25178-600: 2019)	STN EN ISO 25178-600 01 4454
------------	---	--

Geometrical product specifications (GPS) - Surface texture: Areal - Part 600: Metrological characteristics for areal-topography measuring methods (ISO 25178-600:2019)

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. 09/19

Obsahuje: EN ISO 25178-600:2019, ISO 25178-600:2019

129019

EUROPEAN STANDARD

EN ISO 25178-600

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2019

ICS 17.040.20

English Version

**Geometrical product specifications (GPS) - Surface texture:
Areal - Part 600: Metrological characteristics for areal-
topography measuring methods (ISO 25178-600:2019)**

Spécification géométrique des produits (GPS) - État de surface: Surfacique - Partie 600: Caractéristiques métrologiques pour les méthodes de mesure par topographie surfacique (ISO 25178-600:2019)

Geometrische Produktspezifikation (GPS) - Oberflächenbeschaffenheit: Flächenhaft - Teil 600: Messtechnische Merkmale für flächentopographische Messverfahren (ISO 25178-600:2019)

This European Standard was approved by CEN on 15 February 2019.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, 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 25178-600:2019 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 25178-600:2019) 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 October 2019, and conflicting national standards shall be withdrawn at the latest by October 2019.

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.

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

Endorsement notice

The text of ISO 25178-600:2019 has been approved by CEN as EN ISO 25178-600:2019 without any modification.

**INTERNATIONAL
STANDARD**

**ISO
25178-600**

First edition
2019-02

**Geometrical product specifications
(GPS) — Surface texture: Areal —**

Part 600:

**Metrological characteristics for areal
topography measuring methods**

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

*Partie 600: Caractéristiques métrologiques pour les méthodes de
mesure par topographie surfacique*



Reference number
ISO 25178-600:2019(E)

© ISO 2019

ISO 25178-600:2019(E)**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2019

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

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
3.1 All areal topography measuring methods.....	1
3.2 <i>x</i> - and <i>y</i> -scanning systems.....	10
3.3 Optical systems.....	11
3.4 Optical properties of the workpiece.....	14
4 Standard metrological characteristics for surface texture measurement	15
Annex A (informative) Maximum measurable local slope vs. A_N	16
Annex B (informative) Relation to the GPS matrix model	19
Bibliography	20

ISO 25178-600:2019(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.

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*.

A list of all parts in the ISO 25178 series can be found on the ISO website.

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 standard and is to be regarded as a general GPS standard (see ISO 14638). It influences the chain link F of the chains of standards on areal surface texture and profile surface texture.

The ISO/GPS matrix model given in ISO 14638 gives an overview of the ISO/GPS system of which this document is a part. The fundamental rules of ISO/GPS given in ISO 8015 apply to this document and the default decision rules given in ISO 14253-1 apply to the specifications made in accordance with this document, unless otherwise indicated.

For more detailed information of the relation of this document to other standards and the GPS matrix model, see [Annex B](#).

This document describes the metrological characteristics of areal topography methods designed for the measurement of surface topography maps. Several standards (ISO 25178-601, ISO 25178-602, ISO 25178-603, ISO 25178-604, ISO 25178-605 and ISO 25178-606) have already been developed to define terms and metrological characteristics for individual methods. Although we have striven for consistency throughout the series, some slight differences can appear between them. Therefore Technical Committee ISO/TC 213 decided in 2012 to concentrate all common aspects into one standard – this document – and to describe in ISO 25178-601 to ISO 25178-606 only the terms relevant to each individual method. For the existing standards of ISO 25178-601 to ISO 25178-606 it will be necessary to adapt this decision within the next revision. Until then it will be possible to have different definitions for a single term. Further, if any differences between the current ISO 25178-601 to ISO 25178-606 are discovered that give rise to conflict, then parties involved in the conflict should agree how to handle the differences.

NOTE Portions of this document describe patented systems and methods. This information is provided only to assist users in understanding basic principles of areal surface topography measuring instruments. This document is not intended to establish priority for any intellectual property, nor does it imply a license to any proprietary technologies described herein.

Geometrical product specifications (GPS) — Surface texture: Areal —

Part 600:

Metrological characteristics for areal topography measuring methods

1 Scope

This document specifies the metrological characteristics of areal instruments for measuring surface topography. Because surface profiles can be extracted from surface topography images, most of the terms defined in this document can also be applied to profiling measurements.

2 Normative references

There are no normative references in this document.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN