

<b>STN</b>	<b>Geometrické špecifikácie výrobkov (GPS) Charakter povrchu: Plocha Časť 2: Termíny, definície a parametre charakteru povrchu (ISO 25178-2: 2021)</b>	<b>STN EN ISO 25178-2</b>  01 4454
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Geometrical product specifications (GPS) - Surface texture: Areal - Part 2: Terms, definitions and surface texture parameters (ISO 25178-2:2021)

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

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**Geometrical product specifications (GPS) - Surface texture:  
Areal - Part 2: Terms, definitions and surface texture  
parameters (ISO 25178-2:2021)**

Spécification géométrique des produits (GPS) - État de surface: Surfacique - Partie 2: Termes, définitions et paramètres d'états de surface (ISO 25178-2:2021)

Geometrische Produktspezifikation (GPS) - Oberflächenbeschaffenheit: Flächenhaft - Teil 2: Begriffe, Definitionen und Oberflächen-Kenngrößen (ISO 25178-2:2021)

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

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**EN ISO 25178-2:2022 (E)**

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## **European foreword**

This document (EN ISO 25178-2:2022) 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of an identical text or by endorsement, at the latest by July 2022, and conflicting national standards shall be withdrawn at the latest by July 2022.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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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 25178-2:2021 has been approved by CEN as EN ISO 25178-2:2022 without any modification.

# INTERNATIONAL STANDARD

# ISO 25178-2

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

### Part 2: Terms, definitions and surface texture parameters

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

*Partie 2: Termes, définitions et paramètres d'états de surface*



Reference number  
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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](http://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](http://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](http://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 25178-2:2012), which has been technically revised. The main changes to the previous edition are described in [Annex E](#).

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](http://www.iso.org/members.html).

## ISO 25178-2:2021(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 the chain link B of the chains of standards on areal 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 I](#). An overview of standards on profiles and areal surface texture is given in [Annex H](#).

This document develops the terminology, concepts and parameters for areal surface texture.

Throughout this document, parameters are written as abbreviations with lower-case suffixes (as in  $S_q$  or  $V_{mp}$ ) when used in a sentence and are written as symbols with subscripts (as in  $S_q$  or  $V_{mp}$ ) when used in formulae, to avoid misinterpretations of compound letters as an indication of multiplication between quantities in formulae. The parameters in lower case are used in product documentation, drawings and data sheets.

Parameters are calculated from coordinates defined in the specification coordinate system, or from derived quantities (e.g. gradient, curvature).

Parameters are defined for the continuous case, but in verification they are calculated on discrete surfaces such as the primary extracted surface.

A short history of the work done on areal surface texture can be found in [Annex C](#).

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

## Part 2: Terms, definitions and surface texture parameters

### 1 Scope

This document specifies parameters for the determination of surface texture by areal methods.

### 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 16610-1:2015, *Geometrical product specifications (GPS) — Filtration — Part 1: Overview and basic concepts*

ISO 17450-1:2011, *Geometrical product specifications (GPS) — General concepts — Part 1: Model for geometrical specification and verification*

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