

SLOVENSKI STANDARD
oSIST prEN ISO 25178-6:2026
01-april-2026

Specifikacija geometrijskih veličin izdelka (GPS) - Tekstura površine: ploskovna - 6. del: Klasifikacija metod za merjenje topografije površine (ISO/DIS 25178-6:2026)

Geometrical product specifications (GPS) - Surface texture: Areal - Part 6: Classification of methods for measuring surface topography (ISO/DIS 25178-6:2026)

Geometrische Produktspezifikation (GPS) - Oberflächenbeschaffenheit: Flächenhaft - Teil 6: Klassifizierung von Methoden zur Messung der Oberflächentopographie (ISO/DIS 25178-6:2026)

Spécification géométrique des produits (GPS) - État de surface : Surfaique - Partie 6: Classification des méthodes de mesurage de la topographie de surface (ISO/DIS 25178-6:2026)

Ta slovenski standard je istoveten z: prEN ISO 25178-6

ICS:

17.040.20	Lastnosti površin	Properties of surfaces
17.040.40	Specifikacija geometrijskih veličin izdelka (GPS)	Geometrical Product Specification (GPS)

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DRAFT International Standard

ISO/DIS 25178-6

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

Part 6: Classification of methods for measuring surface topography

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

*Partie 6: Classification des méthodes de mesurage de la
topographie de surface*

ICS: 17.040.20; 17.040.40; 01.040.17

ISO/TC 213

Secretariat: **BSI**

Voting begins on:
2026-02-27

Voting terminates on:
2026-05-22

This document is circulated as received from the committee secretariat.

ISO/CEN PARALLEL PROCESSING

Reference number
ISO/DIS 25178-6:2026(en)

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Published in Switzerland

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ISO/DIS 25178-6:2026(en)

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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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This document was prepared by Technical Committee ISO/TC 213, *Dimensional and geometrical product specifications and verification*.

This second edition cancels and replaces the first edition (ISO 25178-6:2010), which has been technically revised.

The main changes are as follows:

- the separate class of line profiling methods has been eliminated; methods formerly classified as line profiling are now included in the class of areal topography methods;
- a recently developed method, known as X-ray computed tomography, is introduced into a new class, known as volumetric methods;
- the method of isometric stereo has been added to the class of areal topography methods, and the special method of circular profiling no longer appears;
- the definitions of the terms “surface texture” and “surface topography” have been added;
- a schematic diagram of elements required for a functional surface texture measurement system has been added;
- the informative [Annex A](#) “Metrological limitations” has been removed, and an informative [Annex A](#) “Concise listing of surface topography measurement methods and areal averaging methods” has been added.

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.

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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 chain of standards on profile and 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 information on the relation of this document to other standards and the GPS matrix model, see [Annex B](#).

This document describes a classification system for methods used primarily for the measurement of surface topography and surface texture. The classification system provides a context for the development of other parts of the ISO 25178 series that describe characteristics and measurement standards for some of the individual methods. Such a classification is also intended to aid in choosing and understanding various types of methods and in determining which standards apply to their application. The classification system is aimed to be as general as possible. However, instruments can exist that do not clearly fit within any single method class.

Since publication of the original version of the standard in 2010, the method of photometric stereo was developed and X-ray computed tomography was adapted to measuring surface topography. These methods are added to the listing of methods in this document. In addition, this document specifies the elements required for a functional surface texture measurement system.

As shown in [Annex B](#), this document is concerned with profile and areal surface texture. However, measurement of surface texture is often achieved by methods capable of measuring overall surface topography. Therefore, the terms “surface texture” and “surface topography” are both defined and used in this document.