Geometrical product specifications (GPS) - Surface texture: Areal - Part 1: Indication of surface texture (ISO 25178-1:2016)

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NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 25178-1:2016 sisaldab Euroopa standardi EN ISO 25178-1:2016 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 25178-1:2016 consists of the English text of the European standard EN ISO 25178-1:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 20.04.2016.	Date of Availability of the European standard is 20.04.2016.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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English Version

Geometrical product specifications (GPS) - Surface texture: Areal - Part 1: Indication of surface texture (ISO 25178-1:2016)

Spécification géométrique des produits (GPS) - État de surface: Surfacique - Partie 1: Indication des états de surface (ISO 25178-1:2016)

Geometrische Produktspezifikation (GPS) - Oberflächenbeschaffenheit: Flächenhaft - Teil 1: Eintragung von Oberflächenbeschaffenheit (ISO 25178-1:2016)

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

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European foreword

This document (EN ISO 25178-1:2016) 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of an identical text or by endorsement, at the latest by October 2016, and conflicting national standards shall be withdrawn at the latest by October 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 25178-1:2016 has been approved by CEN as EN ISO 25178-1:2016 without any modification.

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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. 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*.

ISO 25178 consists of the following parts, under the general title *Geometrical product specifications (GPS) — Surface texture: Areal*:

— *Part 1: Indication of surface texture*

— *Part 2: Terms, definitions and surface texture parameters*

— *Part 3: Specification operators*

— *Part 6: Classification of methods for measuring surface texture*

— *Part 70: Physical measurement standards*

— *Part 71: Software measurement standards*

— *Part 72: XML file format x3p*

— *Part 601: Nominal characteristics of contact (stylus) instruments*

— *Part 602: Nominal characteristics of non-contact (confocal chromatic probe) instruments*

— *Part 603: Nominal characteristics of non-contact (phase shifting interferometric microscopy) instruments*

— *Part 604: Nominal characteristics of non-contact (coherence scanning interferometry) instruments*

— *Part 605: Nominal characteristics of non-contact (point autofocus probe) instruments*

— *Part 606: Nominal characteristics of non-contact (focus variation) instruments*

— *Part 701: Calibration and measurement standards for contact (stylus) instruments*

The following parts are planned:

— *Part 4: Comparison rules*

— *Part 5: Verification operators*

— *Part 600: Metrological characteristics for areal-topography measuring methods* [1)]

— *Part 607: Nominal characteristics of non-contact (confocal microscopy) instruments*

— *Part 700: Calibration and verification of metrological characteristics of areal-topography measuring instruments*

1) Part 600 is intended to contain provisions that are in common with the other 600-level parts of ISO 25178. Once Part 600 has been submitted as a Final Draft International Standard, provisions of the other 600-level parts that are then redundant with provisions of Part 600 will be removed from them.

Introduction

This part of the ISO 25178- series standards is a geometrical product specification standard and is to be regarded as a general GPS standard (see ISO 14638). It influences the chain link A of the chains of standards on areal surface texture.

The ISO GPS Masterplan 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. The default decision rules given in ISO 14253-1 apply to specifications made in accordance with this document, unless otherwise stated.

For more detailed information of the relation of this standard to the GPS matrix model, see Annex F.

This part of ISO 25178 covers the indication of areal surface texture

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

Part 1: Indication of surface texture

1 Scope

This part of ISO 25178 specifies the rules for indication of areal surface texture in technical product documentation (e.g. drawings, specifications, contracts, reports) by means of graphical symbols.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1101:2012, *Geometrical product specifications (GPS) — Geometrical tolerancing — Tolerances of form, orientation, location and run-out*

ISO 1302:2002, *Geometrical Product Specifications (GPS) — Indication of surface texture in technical product documentation*

ISO 3098-2, *Technical product documentation — Lettering — Part 2: Latin alphabet, numerals and marks*

ISO 14406, *Geometrical product specifications (GPS) — Extraction*

ISO 16792, *Technical product documentation — Digital product definition data practices*

ISO 25178-2:2012, *Geometrical product specifications (GPS) — Surface texture: Areal — Part 2: Terms, definitions and surface texture parameters*

ISO 25178-3:2012, *Geometrical product specifications (GPS) — Surface texture: Areal — Part 3: Specification operators*

ISO 81714-1, *Design of graphical symbols for use in the technical documentation of products — Part 1: Basic rules*

3 Terms and definitions

For the purpose of this document, the terms and definitions given in ISO 1101, ISO 1302, ISO 14406, ISO 16792, ISO 25178-2 and ISO 25178-3 apply.

4 Graphical symbols for the indication of areal surface texture

Requirements for areal surface texture are indicated on technical product documentation by graphical symbols, each having its own significant meaning. The symbols used are similar to the ones defined in ISO 1302:2002, Clause 4. To identify that the requirement is an areal surface texture, a rhomb is added to the symbol, see Table 1.