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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

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Contents

Page

Foreword ... **v**
Introduction ... **vi**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms and definitions ... **1**
3.1 General terms ... 1
3.2 Geometrical parameter terms ... 5
3.3 Geometrical feature terms ... 11
4 Field parameters ... **15**
4.1 General ... 15
4.2 Height parameters ... 15
4.2.1 General ... 15
4.2.2 Root mean square height ... 15
4.2.3 Skewness ... 15
4.2.4 Kurtosis ... 15
4.2.5 Maximum peak height ... 16
4.2.6 Maximum pit depth ... 16
4.2.7 Maximum height ... 16
4.2.8 Arithmetic mean height ... 16
4.3 Spatial parameters ... 16
4.3.1 General ... 16
4.3.2 Autocorrelation length ... 16
4.3.3 Texture aspect ratio ... 17
4.3.4 Texture direction ... 18
4.3.5 Dominant spatial wavelength ... 18
4.4 Hybrid parameters ... 18
4.4.1 General ... 18
4.4.2 Root mean square gradient ... 18
4.4.3 Developed interfacial area ratio ... 18
4.5 Material ratio functions and related parameters ... 19
4.5.1 Areal material ratio ... 19
4.5.2 Inverse areal material ratio ... 19
4.5.3 Material ratio height difference ... 20
4.5.4 Areal parameter for stratified surfaces ... 21
4.5.5 Areal material probability parameters ... 23
4.5.6 Void volume ... 24
4.5.7 Material volume ... 25
4.6 Gradient distribution ... 26
4.7 Multiscale geometric (fractal) methods ... 28
4.7.1 Morphological volume-scale function ... 28
4.7.2 Relative area ... 29
4.7.3 Relative length ... 29
4.7.4 Scale of observation ... 29
4.7.5 Volume-scale fractal complexity ... 29
4.7.6 Area-scale fractal complexity ... 29
4.7.7 Length-scale fractal complexity ... 30
4.7.8 Crossover scale ... 30
5 Feature parameters ... **30**
5.1 General ... 30
5.2 Type of texture feature ... 31
5.3 Segmentation ... 32
5.4 Determining significant features ... 32

iTeh Standards
(https://standards.iteh.ai)
Document Preview
ISO 25178-2:2021
https://standards.iteh.ai/catalog/standards/iso/743744d0-8174-4697-9179-0cf33c31ea7b/iso-25178-2-2021

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5.5 Section of feature attributes 33
5.6 Attribute statistics 34
5.7 Feature characterization convention 34
5.8 Named feature parameters 35
5.8.1 General 35
5.8.2 Density of peaks 35
5.8.3 Density of pits 35
5.8.4 Arithmetic mean peak curvature 35
5.8.5 Arithmetic mean pit curvature 36
5.8.6 Five-point peak height 36
5.8.7 Five-point pit depth 36
5.8.8 Ten-point height 36
5.9 Additional feature parameters 37
5.9.1 General 37
5.9.2 Shape parameters 37

Annex A (informative) **Multiscale geometric (fractal) methods** **40**

Annex B (informative) **Determination of areal parameters for stratified functional surfaces** **47**

Annex C (informative) **Basis for areal surface texture standards — Timetable of events** **50**

Annex D (informative) **Implementation details** **51**

Annex E (informative) **Changes made to the 2012 edition of this document** **55**

Annex F (informative) **Summary of areal surface texture parameters** **57**

Annex G (informative) **Specification analysis workflow** **59**

Annex H (informative) **Overview of profile and areal standards in the GPS matrix model** **60**

Annex I (informative) **Relation with the GPS matrix** **61**

Bibliography **62**

iTeh Standards
(https://standards.iteh.ai)
Document Preview

ISO 25178-2:2021
https://standards.iteh.ai/catalog/standards/iso/743744d0-8174-4697-9179-0cf33c31ea7b/iso-25178-2-2021

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Foreword

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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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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.

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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).

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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.

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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 Sq or Vmp) 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.

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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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3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 16610-1:2015 and ISO 17450-1:2011 and the following apply.

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ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1 General terms

3.1.1
skin model
<of a workpiece> model of the physical interface of the workpiece with its environment

[SOURCE: ISO 17450-1:2011, 3.2.2]

3.1.2
surface texture
<areal> geometrical irregularities contained in a *scale-limited surface* (3.1.9)

Note 1 to entry: Surface texture does not include those geometrical irregularities contributing to the form or shape of the surface.

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