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Second edition
2021-12

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
ISO 25178-2:2021(E)

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Published in Switzerland

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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

This is a preview of "ISO 25178-2:2021". Click here to purchase the full version from the ANSI store.

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

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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).

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*, 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.

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](#).