

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 25178-3:2012 sisaldab Euroopa standardi EN ISO 25178-3:2012 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 25178-3:2012 consists of the English text of the European standard EN ISO 25178-3:2012.
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 01.07.2012.	Date of Availability of the European standard is 01.07.2012.
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.

ICS 17.040.20

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Aru 10, 10317 Tallinn, Eesti; www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:
Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

ICS 17.040.20

English Version

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

Spécification géométrique des produits (GPS) - État de
surface: Surfacing - Partie 3: Opérateurs de spécification
(ISO 25178-3:2012)

Geometrische Produktspezifikation (GPS) -
Oberflächenbeschaffenheit: Flächenhaft - Teil 3:
Spezifikationsoperatoren (ISO 25178-3:2012)

This European Standard was approved by CEN on 6 July 2012.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

This document (EN ISO 25178-3:2012) 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 January 2013, and conflicting national standards shall be withdrawn at the latest by January 2013.

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.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 25178-3:2012 has been approved by CEN as a EN ISO 25178-3:2012 without any modification.

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Complete specification operator	2
4.1 General	2
4.2 Method of extraction	2
4.3 Association method	6
4.4 Filtration	6
4.5 Definition area	7
5 General information	7
Annex A (informative) Decision tree for complete specification operator	8
Annex B (normative) Default attribute values for parameters from ISO 25178-2	9
Annex C (normative) Default units for parameters from ISO 25178-2	11
Annex D (informative) Relationship with surface texture profile parameters	14
Annex E (informative) Relation to the GPS matrix model	16
Bibliography	18

Introduction

This part of ISO 25178 is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO/TR 14638). It influences the chain link 3 of the chains of standards on areal surface texture.

The ISO/GPS Masterplan given in ISO/TR 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 specifications made in accordance with this document, unless otherwise indicated.

For more detailed information on the relation of this part of ISO 25178 to the GPS matrix model, see Annex E.

This part of ISO 25178 specifies the specification operators according to ISO 17450-2.

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

Part 3:

Specification operators

1 Scope

This part of ISO 25178 specifies the complete specification operator for surface texture (scale limited surfaces) by areal methods.

2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the cited editions apply. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 14406:2010, *Geometrical Product Specifications (GPS) — Extraction*

ISO 14660-1:1999, *Geometrical Product Specifications (GPS) — Geometrical features — Part 1: General terms and definitions*

ISO/TS 16610-1:2006, *Geometrical Product Specifications (GPS) — Filtration — Part 1: Overview and basic concepts*

ISO 16610-21:2011, *Geometrical product specifications (GPS) — Filtration — Part 21: Linear profile filters: Gaussian filters*

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

ISO 17450-2:— ¹⁾, *Geometrical Product Specifications (GPS) — General concepts — Part 2: Basic tenets, specifications, operators, uncertainties and ambiguities*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given ISO 14660-1, ISO 16610-1, ISO/TS 14406, ISO 17450-1, ISO 17450-2 and ISO 25178-2 and the following apply.

3.1

lateral period limit

<optical> spatial period of a sinusoidal profile at which the optical response falls to 50 %

NOTE The lateral period limit depends on the heights of surface features and the optical method used to probe the surface.

1) To be published.