SLOVENSKI STANDARD
SIST EN ISO 25178-73:2019

01-september-2019

Specifikacija geometrijskih veličin izdelka (GPS) - Tekstura površine: ravna - 73. del: Izrazi in definicije za površinske napake pri meritvah materiala (ISO 25178-73:2019)

Geometrical product specifications (GPS) - Surface texture: Areal - Part 73: Terms and definitions for surface defects on material measures (ISO 25178-73:2019)

Geometrische Produktspezifikation (GPS) - Oberflächenbeschaffenheit: Flächenhaft - Teil 73: Begriffe für Oberflächenfehler an Maßverkörperungen (ISO 25178-73:2019)

Spécification géométrique des produits (GPS) - État de surface: surfacique - Partie 73: Termes et définitions pour les défauts de surface sur les mesures matérialisées (ISO 25178-73:2019)

Ta slovenski standard je istoveten z: **EN ISO 25178-73:2019**

ICS:

01.040.17	Meroslovje in merjenje. Fizikalni pojavi (Slovarji)	Metrology and measurement. Physical phenomena (Vocabularies)
17.040.40	Specifikacija geometrijskih veličin izdelka (GPS)	Geometrical Product Specification (GPS)

SIST EN ISO 25178-73:2019 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 25178-73

June 2019

ICS 01.040.17; 17.040.40

English Version

Geometrical product specifications (GPS) - Surface texture: Areal - Part 73: Terms and definitions for surface defects on material measures (ISO 25178-73:2019)

Spécification géométrique des produits (GPS) - État de surface: surfacique - Partie 73: Termes et définitions pour les défauts de surface sur les mesures matérialisées (ISO 25178-73:2019)

Geometrische Produktspezifikation (GPS) - Oberflächenbeschaffenheit: Flächenhaft - Teil 73: Begriffe für Oberflächenfehler an Maßverkörperungen (ISO 25178-73:2019)

This European Standard was approved by CEN on 3 May 2019.

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

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN ISO 25178-73:2019 E

Contents

Page

European foreword

This document (EN ISO 25178-73:2019) 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 December 2019, and conflicting national standards shall be withdrawn at the latest by December 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 25178-73:2019 has been approved by CEN as EN ISO 25178-73:2019 without any modification.

INTERNATIONAL STANDARD

ISO 25178-73

First edition
2019-05

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

Part 73: Terms and definitions for surface defects on material measures

Spécification géométrique des produits (GPS) — État de surface: surfacique —
Partie 73: Termes et définitions pour les défauts de surface sur les mesures matérialisées

Reference number
ISO 25178-73:2019(E)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

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*.

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

0.1 General

This document is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO 14638). It influences chain link F of the chain of standards on profile surface texture, areal surface texture and surface imperfections.

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 on the relation of this document to the GPS matrix model, see Annex B.

This document is based on the premise that a material measure has a real geometrical surface which is a realization of an ideal or nominal surface, which in turn can in most cases be regarded as a simple mathematical concept: for example a plane, a sphere, a step function or a sinusoidal shape. In each case there will be an associated precisely known quantity, which is used when the material measure is measured by a surface texture-measuring instrument in one or more operations during the calibration and set-up of that instrument.

Any portion of the measuring surface of the material measure at which the real surface deviates from the ideal nominal surface is therefore more or less undesirable, and is here denoted by the term *defect*.

0.2 Relationship to ISO 8785

ISO 8785 was intended to apply to all types of surface, whether functional or otherwise. Examples of functional surfaces are: brake disks, cylinder linings, optical lens and mirror surfaces, fluid pipe couplings, marine propeller blades and artificial hip joints. In each case, the surface has to perform one or more definite jobs and, consequently, the choice of method of manufacture and the type of surface geometry, together with a certain range of parameter values which are specified for it, are usually a compromise between conflicting requirements which might not all be perfectly fulfilled. The functional surface can then be measured in order to find out how closely it matches the parameter values which have been specified.

However, this is not the same as determining how well the surface functions. In many cases it is not obvious exactly what the ideal profile shape from the point of view of best function would be. Therefore, it is possible that a surface which deviates from the specified profile in some places actually performs better than one which has no deviations. For this reason, ISO 8785 used the general term *imperfections*, which does not suggest undesirability, in preference to the term *defects*, which does suggest this.

Unlike ISO 8785, this document does not deal with any classes of defect, other than geometrical, that might appear upon the surfaces of material measures. Examples of other classes of defect are: unwanted variations in such physical properties as:

— surface hardness;

— surface colour;

— electrical properties.

For the purposes of this document, no instance of such an unwanted variation in a physical property is considered to be a defect unless it coincides spatially with the area of a geometrical defect. For information on variations in surface colour, see Annex A.

0.3 Relationship to ISO 5436-1 and ISO 25178-70

The material measures and calibration specimens which are described in ISO 5436-1 and ISO 25178-70 are not functional surfaces as described in 0.2. Material measures exist only in order to be measured;