

**Geometrical product specifications (GPS) - Flatness -
Part 1: Vocabulary and parameters of flatness (ISO
12781-1:2011)**

EVS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 12781-1:2011 sisaldab Euroopa standardi EN ISO 12781-1:2011 ingliskeelset teksti.

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English Version

Geometrical product specifications (GPS) - Flatness - Part 1:
Vocabulary and parameters of flatness (ISO 12781-1:2011)

Spécification géométrique des produits (GPS) - Planéité -
Partie 1: Vocabulaire et paramètres de planéité (ISO
12781-1:2011)

Geometrische Produktspezifikation (GPS) - Ebenheit - Teil
1: Begriffe und Kenngrößen der Ebenheit (ISO 12781-
1:2011)

This European Standard was approved by CEN on 26 February 2011.

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Foreword

This document (EN ISO 12781-1:2011) 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of an identical text or by endorsement, at the latest by October 2011, and conflicting national standards shall be withdrawn at the latest by October 2011.

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 12781-1:2011 has been approved by CEN as a EN ISO 12781-1:2011 without any modification.

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Introduction

This part of ISO 12781 is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO/TR 14638). It influences chain link 2 of the chain of standards on form of a surface (independent of a datum).

The ISO/GPS Masterplan given in ISO/TR 14638 gives an overview of the ISO/GPS system of which this part of ISO 12781 is a part. The fundamental rules of ISO/GPS given in ISO 8015 apply to this part of ISO 12781 and the default decision rules given in ISO 14253-1 apply to specifications made in accordance with this part of ISO 12781, unless otherwise indicated.

For more detailed information on the relationship of this part of ISO 12781 to other standards and the GPS matrix model, see Annex C.

This part of ISO 12781 defines terms and concepts necessary for defining the specification operators according to ISO 17450-2 for flatness of integral features.

Extracting data always involves applying a certain filtering process. An additional filtering of the extracted data might or might not be applied. This additional filter can be a mean line filter (Gaussian, spline, wavelet, etc.) or a non-linear filter (e.g. morphological filter). The type of filtering influences the definition of flatness and the specification operators and, therefore, needs to be stated unambiguously.

This part of ISO 12781 is not intended to disallow any means of measuring flatness.

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Geometrical product specifications (GPS) — Flatness —

Part 1: Vocabulary and parameters of flatness

1 Scope

This part of ISO 12781 defines the terms and concepts related to flatness of individual complete integral features only.

2 Normative references

The following referenced documents are indispensable for the application 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 14660-1:1999, *Geometrical Product Specifications (GPS) — Geometrical features — Part 1: General terms and definitions*

ISO 14660-2:1999, *Geometrical Product Specifications (GPS) — Geometrical features — Part 2: Extracted median line of a cylinder and a cone, extracted median surface, local size of an extracted feature*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14660-1, ISO 14660-2, ISO 17450-1 and the following apply.

3.1 General terms

3.1.1

flatness

property of a plane

3.1.2

nominal plane

mathematically defined plane as specified by the design

1) To be published. (Revision of ISO/TS 17450-1:2005).