



SLOVENSKI STANDARD SIST EN ISO 12085:2000

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Nadomešča:

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Specifikacija geometrijskih veličin izdelka - Tekstura površine: profilna metoda - Parametri motivov

Geometrical product specification (GPS) - Surface texture: Profile method - Motif
parameters (ISO 12085:1996)

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Geometrische Produktspezifikationen (GPS) - Oberflächenbeschaffenheit:
Tastschnittverfahren - Motifkenngrößen (ISO 12085:1996)

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Spécification géométrique des produits (GPS) - Etat de surface: Méthode du profil -
Paramètres liés aux motifs (ISO 12085:1996)

Ta slovenski standard je istoveten z: EN ISO 12085:1997

ICS:

17.040.20 Lastnosti površin Properties of surfaces

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EUROPEAN STANDARD
NORME EUROPÉENNE
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EN ISO 12085

December 1997

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English version

Geometrical product specification (GPS) - Surface texture:
Profile method - Motif parameters (ISO 12085:1996)

Spécification géométrique des produits (GPS) - Etat de surface: Méthode du profil - Paramètres liés aux motifs (ISO 12085:1996)

Geometrische Produktspezifikationen (GPS) - Oberflächenbeschaffenheit: Tastschnittverfahren - Motifkenngrößen (ISO 12085:1996)

This European Standard was approved by CEN on 2 November 1997.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

The text of the International Standard from Technical Committee ISO/TC 57 "Metrology and properties of surfaces" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 290 "Dimensional and geometrical product specification and verification", the secretariat of which is held by DIN.

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 June 1998, and conflicting national standards shall be withdrawn at the latest by June 1998.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 12085:1996 has been approved by CEN as a European Standard without any modification.

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INTERNATIONAL
STANDARD

ISO
12085

First edition
1996-08-15

**Geometrical Product Specification (GPS) —
Surface texture: Profile method — Motif
parameters**

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*Spécification géométrique des produits (GPS) — État de surface: Méthode
du profil — Paramètres liés aux motifs*

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Reference number
ISO 12085:1996(E)

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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 12085 was prepared jointly by Technical Committees ISO/TC 57, *Metrology and properties of surfaces*, Subcommittee SC 1, *Geometrical parameters — Instruments and procedures for measurement of surface roughness and waviness*, ISO/TC 3, *Limits and fits* and ISO/TC 10, *Technical drawings, product definition and related documentation*, Subcommittee SC 5, *Dimensioning and tolerancing*.

Annex A forms an integral part of this International Standard. Annexes B, C and D are for information only.

Introduction

This International Standard is a Geometrical Product Specification (GPS) standard and is to be regarded as a General GPS standard (see ISO/TR 14638). It influences links 2, 3 and 4 of the surface texture chain of standards on roughness profile and waviness profile.

For more detailed information of the relation of this International Standard to other GPS standards, see annex C.

The approach described in this International Standard facilitates the determining roughness and waviness parameters from the primary profile by finding those motifs which characterize the surface under consideration. This method is independent of any profile filter and results in parameters which are based on the depth and spacing of the motifs. These parameters, which are complementary to those defined in ISO 4287, can be used to describe the functional properties of workpieces as indicated in Annex B.

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Geometrical Product Specification (GPS) — Surface texture: Profile method — Motif parameters

1 Scope

This International Standard defines terms and parameters used for determining surface texture by the motif method. It also describes the corresponding ideal operator and measuring conditions.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1302:1992, *Technical drawings — Method of indicating surface texture*.

ISO 3274:1996, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Nominal characteristics of contact (stylus) instruments*.

ISO 4287:1996, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and parameters of surface texture*.

ISO 4288:1996, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture*.

3 Definitions

For the purposes of this International Standard the following definitions apply.

3.1 General definitions

3.1.1 surface profile: (See ISO 4287.)

3.1.2 primary profile: (See ISO 3274.)

3.1.3 local peak of profile: A part of a profile between two adjacent minima of the profile (see figure 1).

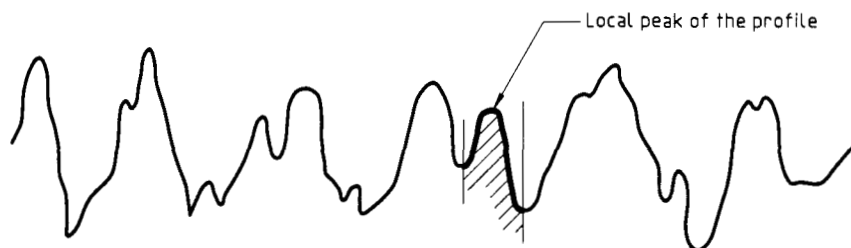


Figure 1 — Local peak of profile

3.1.4 local valley of profile: A part of a profile between two adjacent maxima of the profile (see figure 2).

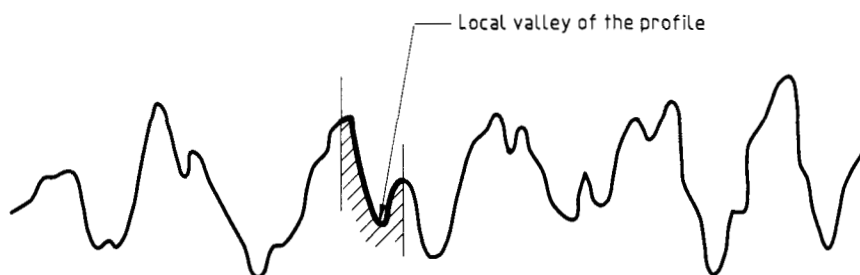


Figure 2 — Local valley of profile

3.1.5 motif: A portion of the primary profile between the highest points of two local peaks of the profile, which are not necessarily adjacent.

A motif is characterized by (see figures 3 and 5):

- its length, AR_i or AW_i , measured parallel to the general direction of the profile;
- its two depths, H_j and H_{j+1} , or Hw_j and Hw_{j+1} , measured perpendicular to the general direction of the primary profile;
- its T characteristic, that is the smallest depth between the two depths.

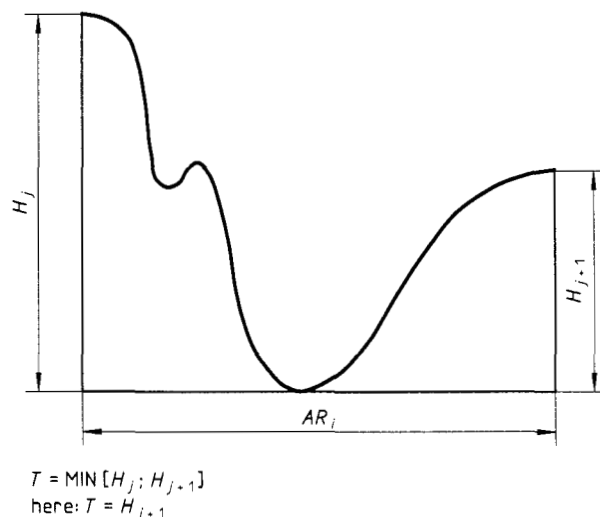


Figure 3 — Roughness motif

3.1.6 roughness motif: Motif derived by using the ideal operator with limit value A (see figure 3).

NOTE 1 By this definition, a roughness motif has a length AR_i smaller than or equal to A .