INTERNATIONAL STANDARD

ISO 12085

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

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

Reference number
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Contents

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Annexes

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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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.)