

This is a preview of "ISO 12085:1996". Click here to purchase the full version from the ANSI store.

STANDARD

12085

First edition
1996-08-15

**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*

This material is reproduced from ISO documents under International Organization for Standardization (ISO) Copyright License number IHS/ICC/1996. Not for resale. No part of these ISO documents may be reproduced in any form, electronic retrieval system or otherwise, except as allowed in the copyright law of the country of use, or with the prior written consent of ISO (Case postale 56, 1211 Geneva 20, Switzerland, Fax +41 22 734 10 79), IHS or the ISO Licensor's members.



Reference number
ISO 12085:1996(E)

This is a preview of "ISO 12085:1996". [Click here to purchase the full version from the ANSI store.](#)

Contents

Page

1	Scope.....	1
2	Normative references.....	1
3	Definitions	1
3.1	General definitions	1
3.2	Parameter definitions	3
4	Theoretically exact operator of the motif method.....	5
4.1	General	5
4.2	Conventional limits of motifs.....	5
4.3	Depth discrimination	5
4.4	Identification of roughness and waviness motifs through the combination of motifs	8
4.5	Procedure for parameter calculation	10
5	Measuring conditions of parameters.....	12
5.1	Convention concerning traversing the primary profile	12
5.2	Recommended measurement conditions.....	12
5.3	Profile quantization step	12
5.4	Rule for acceptance.....	12
5.5	Use of motifs method for analysis of multiprocess surfaces.....	12
5.6	Indications on the drawings	12

© ISO 1996

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

This is a preview of "ISO 12085:1996". [Click here to purchase the full version from the ANSI store.](#)

Annexes

A	Calculation method for combination of motifs	13
B	Relation between motif parameters and function of surfaces	16
C	Relation to the GPS matrix model	17
D	Bibliography	18

This is a preview of "ISO 12085:1996". [Click here to purchase the full version from the ANSI store.](#)

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.

This is a preview of "ISO 12085:1996". [Click here to purchase the full version from the ANSI store.](#)

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.