

Translated and Published by Japanese Standards Association

JIS B 0631 : 2000 (ISO 12085 : 1996) (JSA)

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

ICS 17.040.20

Descriptors : curves (geometry), product specification, products, specification **Reference number** : **JIS B 0631** : **2000** (**E**)

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal of establishing a Japanese Industrial Standard from the Japanese Standards Association (JSA), with a draft of Industrial Standard based on the provision of Clause 1, Article 12 of the Industrial Standardization Law.

> Date of Establishment: 2000-03-20 Date of Public Notice in Official Gazette: 2000-03-21 Investigated by: Japanese Industrial Standards Committee Divisional Council on Machine Elements

JIS B 0631:2000, First English edition published in 2002-07

Translated and published by: Japanese Standards Association 4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents, the original JIS is to be the final authority.

© JSA 2002

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.

Printed in Japan

Contents

			Page
Introduction			1
1	Scope		
2	Normative referen	ces	1
3	Definitions		
3.1	General definition	ns	2
3.2	Parameter defini	tions	4
4	Theoretically exact operator of the motif method		
4.1	General		
4.2	Conventional limits of motifs		
4.3	Depth discrimination		
4.4	Identification of roughness and waviness motifs through the combination of motifs		
4.5	Procedure for par	cameter calculation	9
5	Measuring conditi	ons of parameters	11
5.1	Convention concerning traversing the primary profile		
5.2	Recommended measurement conditions		
5.3	Profile quantization step		
5.4	Rule for acceptance		11
5.5	Use of motifs me	thod for analysis of multiprocess surfaces	11
5.6	Indications on th	e drawings	11
Anne	ex A (normative)	Calculation method for combination of motifs	12
Anne	ex B (informative)	Relation between motif parameters and function of surfaces	15
Anne	ex C (informative)	Relation to the GPS matrix model	16
Anne	ex D (informative)	Bibliography	17

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

Introduction This Japanese Industrial Standard has been prepared based on the first edition of **ISO 12085** Geometrical Product Specification (GPS)—Surface texture: Profile method—Motif parameters published in 1996 without modifying the technical contents.

This Standard is a Geometrical Product Specification (GPS) standard and is to be regarded as a General GPS standard (see **TR B 0007**). 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 Standard to other GPS standards, see Annex C.

The approach described in this 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.

The portions underlined with dots are the matters not stated in the original International Standard.

Remarks: **TR B 0007** is identical with **ISO/TR 14638**: 1995 Geometrical Product Specification (GPS)—Masterplan.

1 Scope This 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 Standard, constitute provisions of this Standard. If the indication of the year of coming into effect is given to these referred standards, only the edition of indicated year constitutes the provision of this Standard but the revision and amendment made thereafter are not applied. The normative references without the indication of the year of coming into effect apply limiting only to the most recent edition.

```
JIS B 0031 Technical drawings—Method of indicating surface texture on draw-
ings
```

- Remarks: Items cited from **ISO 1302**: 1992 Technical drawings—Method of indicating surface texture are equivalent to the corresponding matters of the said standard.
- JIS B 0651 Surface texture—Instruments for the assessment of surface texture— Profile method
- ISO 3274 : 1996 Geometrical Product Specifications (GPS)—Surface texture : Profile method—Nominal characteristics of contact (stylus) instruments