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STANDARD

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JIS B 0671-1 : 2002
(ISO 13565-1 : 1996)
(JSA)

**Geometrical Product Specifications
(GPS) — Surface texture: Profile
method; Surfaces having stratified
functional properties — Part 1:
Filtering and general measurement
conditions**

ICS 17.040.20; 17.040.30

Reference number : JIS B 0671-1 : 2002 (E)

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, 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 Article 12 Clause 1 of the Industrial Standardization Law.

This Standard has been made based on **ISO 13565-1:1996 Geometrical Product Specifications (GPS) — Surface texture: Profile method; Surfaces having stratified functional properties — Part 1: Filtering and general measurement conditions** for the purposes of making easy to compare this Standard with International Standard; to prepare Japanese Industrial Standard conforming with International Standard; and to propose a draft of International Standard which is based on Japanese Industrial Standard.

JIS B 0671 group consists of the following three parts with the general title *Geometrical Product Specifications (GPS) — Surface texture: Profile method; Surfaces having stratified functional properties*.

Part 1: Filtering and general measurement conditions

Part 2: Height characterization using the linear material ratio curve

Part 3: Height characterization using the material probability curve

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In the event of any doubts arising as to the contents,
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Geometrical Product Specifications (GPS) — Surface texture: Profile method; Surfaces having stratified functional properties — Part 1: Filtering and general measurement conditions

Introduction This part of JIS B 0671 has been prepared based on the first edition of ISO 13565-1 *Geometrical Product Specifications (GPS) — Surface texture : Profile method ; Surfaces having stratified functional properties — Part 1 : Filtering and general measurement conditions* published in 1996 without modifying the technical contents.

This part of JIS B 0671 is a Geometrical Product Specification (GPS) standard and is to be regarded as a General GPS standard (see TR B 0007). It influences chain links 2 and 3 of the chain of standards for roughness profile.

For more detailed information of the relation of this Standard to other standards and the GPS matrix model, see annex A.

The roughness profile generated using the filter defined in JIS B 0632 suffers some undesirable distortions, when the measured surface consists of relatively deep valleys beneath a more finely finished plateau with minimal waviness. This type of surface is very common, for example in cylinder liners for internal combustion engines.

This part of JIS B 0671 provides a method of greatly reducing these distortions, thus enabling the parameters defined in JIS B 0671-2 and JIS B 0671-3 to be used for evaluating the above-mentioned type of surface, with minimal influence from these distortions.

“Informations” underlined with dots in this Standard are the matters not included in the original International Standard.

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

Information : ~~The plateau refers to the random process formed by eliminating the high portion of roughness profile by fine finishing, and the valley refers to the random process beneath the plateau.~~

1 Scope This part of JIS B 0671 describes a filtering method for use with surfaces that have deep valleys below a more finely finished plateau with a relatively small amount of waviness. The reference line resulting from filtering according to JIS B 0632 for such surfaces is undesirably influenced by the presence of the valleys. The filtering approach described in this Standard suppresses the valley influence on the reference line such that a more satisfactory reference line is generated.

Remarks : The International Standard corresponding to this Standard is as follows.

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and JIS are