AS ISO 1302—2005
ISO 1302:2002

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Australian Standard™

Geometrical product specifications (GPS)—Indication of surface texture in technical product documentation

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This Australian Standard was prepared by Committee ME-072, Technical Drawings. It was approved on behalf of the Council of Standards Australia on 9 March 2005. This Standard was published on 4 May 2005.

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This Standard was issued in draft form for comment as DR 04296.

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Geometrical product specifications (GPS)—Indication of surface texture in technical product documentation

First published as AS ISO 1302—2005.

Published by Standards Australia, GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 6625 2

PREFACE

This Standard was prepared by the Standards Australia Committee ME-072, Technical Drawings.

This Standard is identical with and reproduced from ISO 1302:2002, *Geometrical product specifications (GPS)—Indication of surface texture in technical product documentation.*

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number appears on the cover and title page while the International Standard number appears only on the cover.

(b) In the source text, 'this International Standard' should read 'this Australian Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by equivalent Australian Standards, as follows:

Reference to International Standard		*Australian Standard*
ISO		AS
129	Technical drawings—Indication of dimensions and tolerances	—
129-1	Part 1: General principles	—
1101	Geometrical Product Specifications (GPS)—Geometrical tolerancing Tolerances of form, orientation, location and run-out	—
3098	Technical product documentation—Lettering	—
3098-2	Part 2: Latin alphabet, numerals and marks	
3274	Geometrical Product Specifications (GPS)—Surface texture: Profile method—Nominal characteristics of contact (stylus) instruments	—
4287	Geometrical product specifications (GPS)—Surface texture: Profile method—Terms, definitions and surface texture parameters	—
4288	Geometrical product specifications (GPS)—Surface texture: Profile method—Rules and procedures for the assessment of surface texture	—
8785	Geometrical Product Specification (GPS)—Surface imperfections—Terms, definitions and parameters	—
10135	Technical drawings—Simplified representation of moulded, cast and forged parts	—
10209	Technical product documentation—Vocabulary	—
10209.1	Part 1: Terms relating to technical drawings General and types of drawings	

Reference to International Standard		*Australian Standard*	
11562	Geometrical Product Specifications (GPS)—Surface texture: Profile method—Metrological characteristics of phase correct filters	—	
12085	Geometrical product specifications (GPS)—Surface texture: Profile method—Motif parameters	—	
13565	Geometrical Product Specifications (GPS)—Surface texture: Profile method; Surfaces having stratified functional properties	—	
13565-1	Part 1: Filtering and general measurement conditions		
13565-2	Part 2: Height characterization using the material probability curve	—	
13565-3	Part 3: Height characterization using the material probability curve	—	
14253	Geometrical Product Specifications (GPS)—Inspection by measurement of workpieces and measuring equipment	4826	Geometric Product Specifications (GPS)—Inspection by measurement of workpieces and measuring equipment
14253-1	Part 1: Decision rules for proving conformance or non-conformance with specification	4826.1	Part 1: Decision rules for proving conformance or non-conformance with specifications
14660	Geometrical Product specifications (GPS)—Geometrical features—	—	
14660-1	Part 1:General terms and definitions		
81714	Design of graphical symbols for use in the technical documentation of products—	—	
81714-1	Part 1: Basic rules		

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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 link 1 of the chain of standards on roughness, waviness and primary profile.

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

This edition of ISO 1302 has been developed for use together with the new editions of the surface texture standards issued in 1996 and 1997, which introduce many radical changes compared with the content of the former surface texture standards issued in the 1980s. The changes are so radical that the drawing indications in some instances have a completely new interpretation. Annex H gives detailed information on these changes.

Drawing indications applied on technical drawings according to former editions of this International Standard refer to the rules given in the surface texture standards issued at the time of issue and can only be interpreted according to those surface texture standards. Annex I provides information on former practices.

The drawing indications given in this edition are to be used for the unambiguous reference to the new surface texture standards issued in 1996 and 1997.

Textual indications in this edition of ISO 1302 are under continuous development within ISO/TC 213 and a separate, detailed standard on this issue is under preparation. Consequently, the textual indications given may change in future editions of ISO 1302.

NOTES

AUSTRALIAN STANDARD

Geometrical Product Specifications (GPS) — Indication of surface texture in technical product documentation

1 Scope

This International Standard specifies the rules for the indication of surface texture in technical product documentation (e.g. drawings, specifications, contracts, reports) by means of graphical symbols and textual indications.

It is applicable to the indication of requirements for surfaces by means of

a) profile parameters, according to ISO 4287, related to the

- — R-profile (roughness parameters),
- — W-profile (waviness parameters), and
- — P-profile (structural parameters),

b) motif parameters, according to ISO 12085, related to the

- — roughness motif, and
- — waviness motif,

c) parameters related to the material ratio curve according to ISO 13565-2 and ISO 13565-3.

NOTE For the indication of requirements for surface imperfections (pores, scratches etc.), which cannot be specified using surface texture parameters, reference is made to ISO 8785, which covers surface imperfections.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 129-1:—[1)], *Technical drawings — Indication of dimensions and tolerances — Part 1: General principles*

ISO 1101:—[2)], *Geometrical Product Specifications (GPS) — Geometrical tolerancing — Tolerancing of form, orientation, location and run-out*

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1) To be published. (Revision of ISO 129:1985)

2) To be published. (Revision of ISO 1101:1983)