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Geometrical product specification (GPS) — Surface texture: Areal —

Part 70: Material measures

*Spécification géométrique des produits (GPS) — État de surface:
surfamique —*

Partie 70: Mesures matérialisées



Reference number
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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 213, *Dimensional and geometrical product specifications and verification*.

ISO 25178 consists of the following parts, under the general title *Geometrical product specification (GPS) — Surface texture: Areal*:

- *Part 1: Areal – Indication of surface texture*
- *Part 2: Areal – Terms, definitions and surface texture parameters*
- *Part 3: Areal – Specification operators*
- *Part 6: Classification of methods for measuring surface texture*
- *Part 70: Material measures*
- *Part 71: Software measurement standards*
- *Part 601: Nominal characteristics of contact (stylus) instruments*
- *Part 602: Nominal characteristics of non-contact (confocal chromatic probe) instruments*
- *Part 603: Nominal characteristics of non-contact (phase-shifting interferometric microscopy) instruments*
- *Part 604: Nominal characteristics of non-contact (coherence scanning interferometry) instruments*
- *Part 605: Nominal characteristics of non-contact (point autofocus probe) instruments*
- *Part 606: Nominal characteristics of non-contact (focus variation) instruments*
- *Part 701: Calibration and measurement standards for contact (stylus) instruments*

The following part is under preparation:

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— *Part 72: XML file format x3p*

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Introduction

This part of ISO 25178 is a geometrical product specification standard and is to be regarded as a General GPS standard (see ISO/TR 14638). It influences the chain link 6 of the chains of standards on areal surface texture, roughness profile, waviness profile and primary profile.

The ISO GPS Masterplan given in ISO/TR 14638 gives an overview of the ISO GPS system of which this document is a part. The fundamental rules of ISO GPS given in ISO 8015 apply to this document. The default decision rules given in ISO 14253-1 apply to specifications made in accordance with this document, unless otherwise stated.

For more detailed information of the relation of this standard to the GPS matrix model, see [Annex E](#).

This part of ISO 25178 introduces material measures that can be used for periodic verification and adjustment of areal surface texture instruments.