Geometrical product specifications (GPS) - Filtration - Part 71: Robust areal filters: Gaussian regression filters (ISO 16610-71:2014)

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NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 16610-71:2014 sisaldab Euroopa standardi EN ISO 16610-71:2014 inglisekeelset teksti.	This Estonian standard EVS-EN ISO 16610-71:2014 consists of the English text of the European standard EN ISO 16610-71:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 24.09.2014.	Date of Availability of the European standard is 24.09.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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Foreword

This document (EN ISO 16610-71:2014) has been prepared by Technical Committee ISO/TC 213 “Dimensional and geometrical product specifications and verification” in collaboration with Technical Committee CEN/TC 290 “Dimensional and geometrical product specification and verification” the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2015, and conflicting national standards shall be withdrawn at the latest by March 2015.

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Endorsement notice

The text of ISO 16610-71:2014 has been approved by CEN as EN ISO 16610-71:2014 without any modification.

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Introduction

This part of ISO 16610 is a Geometrical Product Specification (GPS) standard and is to be regarded as a Global GPS standard (see ISO/TR 14638). It influences the chain links 3 and 5 of all chains of standards.

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

For more detailed information of the relation of this document to the GPS matrix model, see Annex C.

This part of ISO 16610 specifies the metrological characteristics of robust areal Gaussian regression filters, for the rotationally symmetric filtration of nominal planar surfaces and the filtration of nominal cylindrical surfaces.

The filter is insensitive against specific phenomena in the input data (e.g. spike discontinuities as well as deep valleys and high peaks, etc.). The boundaries of the measured surface are still usable.

Geometrical product specifications (GPS) — Filtration —

Part 71:
Robust areal filters: Gaussian regression filters

1 Scope

This part of ISO 16610 specifies the characteristics of the robust areal Gaussian regression filter for the evaluation of surfaces that may contain spike discontinuities as well as deep valleys and high peaks. It specifies in particular how to separate large scale lateral components and short scale lateral components of a surface.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 16610-1, *Geometrical product specifications (GPS) — Filtration — Part 1: Overview and basic concepts*

ISO 16610-30:—[1)], *Geometrical product specifications (GPS) — Filtration — Part 30: Robust profile filters: Basic concepts*

ISO/IEC Guide 99, *International vocabulary of metrology — Basic and general concepts and associated terms (VIM)*

ISO/IEC Guide 98-3, *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 16610-1, ISO 16610-30, ISO/IEC Guide 99 and ISO/IEC Guide 98-3 and the following apply.

3.1
robust planar filter
non linear areal filter to separate a planar surface with specific phenomena (e.g. spike discontinuities as well as deep valleys and high peaks etc.) into large scale lateral components and short scale lateral components

3.2
robust cylindrical filter
non linear areal filter to separate a cylindrical surface with specific phenomena (e.g. spike discontinuities as well as deep valleys and high peaks etc.) into large scale lateral components and short scale lateral components

1) To be published. (Revision of ISO/TS 16610-30:2009)