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NSAI Standards

Irish Standard
I.S. EN ISO 5459:2011

Geometrical product specifications (GPS) - Geometrical tolerancing - Datums and datum systems (ISO 5459:2011)

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NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 5459

August 2011

ICS 01.100.20; 17.040.10

English Version

Geometrical product specifications (GPS) - Geometrical tolerancing - Datums and datum systems (ISO 5459:2011)

Spécification géométrique des produits (GPS) - Tolérancement géométrique - Références spécifiées et systèmes de références spécifiées (ISO 5459:2011)

Geometrische Produktspezifikation (GPS) - Geometrische Tolerierung - Bezüge und Bezugssysteme (ISO 5459:2011)

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Foreword

This document (EN ISO 5459:2011) 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of an identical text or by endorsement, at the latest by February 2012, and conflicting national standards shall be withdrawn at the latest by February 2012.

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INTERNATIONAL STANDARD

ISO 5459

Second edition
2011-08-15

Geometrical product specifications (GPS) — Geometrical tolerancing — Datums and datum systems

Spécification géométrique des produits (GPS) — Tolérancement géométrique — Références spécifiées et systèmes de références spécifiées

Reference number
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Foreword

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ISO 5459 was prepared by Technical Committee ISO/TC 213, *Dimensional and geometrical product specification and verification*.

This second edition cancels and replaces the first edition (ISO 5459:1981), which has been technically revised.

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Introduction

ISO 5459 is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO/TR 14638). It influences the chain links 1 to 3 of the chain of standards on datums.

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 International Standard to the GPS matrix model, see Annex G.

For the definitive presentation (proportions and dimensions) of symbols for geometrical tolerancing, see ISO 7083.

The previous version of ISO 5459 dealt only with planes, cylinders and spheres being used as datums. There is a need to consider all types of surfaces, which are increasingly used in industry. The definitions of classes of surfaces as given in Annex B are exhaustive and unambiguous.

This edition of ISO 5459 applies new concepts and terms that have not been used in previous ISO GPS standards. These concepts are described in detail in ISO/TR 14638, ISO 17450-1 and ISO 17450-2; therefore, it is recommended to refer to these standards when using ISO 5459.

This International Standard provides tools to express location or orientation constraints, or both, for a tolerance zone. It does not provide information about the relationship between datums or datum systems and functional requirements or applications.

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