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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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Geometrical product specifications (GPS) - Association

产品几何技术规范（GPS） 拟合

(English Translation)

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Foreword

This document conforms to GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting is scheduled.

This document adopts ISO 4351:2023 "Product Geometry Specification (GPS) Fitting".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Product Geometric Specifications (SAC/TC 240).

1 Scope

This document provides the terminology and basic concepts of fitting, including objective function, fitting constraints, and entity bias.

This document does not specify the default fitting specifications and GPS rules that have been given in other GPS standards.

Note: Fitting is used to establish.

- Benchmark;
- Reference elements used for geometric or surface structure specifications;
- Fitting elements of the measured element;
- Any size characteristic;
- Intersecting planes, oriented planes, combined planes, or directional elements.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are listed below.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

ISO 17450-1 Product Geometry Specification (GPS) - General Concepts - Part 1: Models for Geometric Specification and Verification [Geo-metrical product specifications (GPS)-General concepts-Part 1: Model for geometrical specification and [verification] 2011, MOD) ISO 17450-4 Product Geometry Specification (GPS) - General Concepts - Part 4: GPS Deviation Quantification of Geometric Features [Geo-metrical product specifications (GPS)-Basic concepts-Part 4: Geometrical characteristics for quantifying GPS deviations Note. GB/T 24637.4-2020 Product Geometry Specification (GPS) General Concepts Part 4: GPS Deviation Quantification of Geometric Features (ISO 17450-4.

2017, MOD)

3 Terms and Definitions

The terms and definitions defined in ISO 17450-1 and ISO 17450-4, as well as the following terms and definitions, apply to this document.

Fitting association

Feature operations that approximate one or more ideal features to one or more input

features (3.2) according to a certain fitting criterion (3.5).

Note: This definition references the definition in ISO 17450-1 and introduces the term "input element".

Input feature

Fitting elements (3.3) or a portion of non-ideal elements, which may be extracted elements from filtered or unfiltered waves or real elements.

International factors.