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

GB/T 42952.1-2023

**Thermoplastics pipes for the conveyance of fluids - Dimensions
and tolerances - Part 1: Metric series**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is Part 1 of GB/T 42952 "Dimensions and Tolerances of Thermoplastic Pipes for Fluid Transport". GB/T 42952 has been

The following sections have been published.

---Part 1. Metric series.

This document is equivalent to ISO 11922-1:2018 "Dimensions and tolerances of thermoplastic pipes for fluid conveyance Part 1. Metric"

series".

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

Introduction

In order to ensure the interchangeability of thermoplastic pipe products for fluid transportation, it is necessary to unify the dimensions and tolerance levels of various types of pipes

Provisions.

In the past, tolerance classes for thermoplastic pipes were scattered among specific product standards. In most cases, product standards only give

For the specific tolerance value, the user cannot know the tolerance level used, nor can he calculate the tolerance of other required dimensions when needed.

The purpose of GB/T 42952 is to establish a unified standard covering the dimensions and

tolerances of all thermoplastic pipes for fluid transportation.

The grade standard is proposed to consist of two parts.

---Part 1.Metric series.

---Part 2.Imperial series.

GB/T 42952.1 includes tolerance levels for average outer diameter, out-of-roundness, wall thickness at any point and average wall thickness. Responsible for drafting thermoplastic

Each interested party in the material piping documentation can select the applicable tolerance level from this document.

Terms and definitions relevant to this document can also be found in GB/T 19278.

Thermoplastic pipes for fluid transportation

Dimensions and Tolerances Part 1.Metric Series

1 Scope

This document specifies the outer diameter, out-of-roundness and wall thickness of thermoplastic pipes for fluid conveyance in compliance with the requirements of ISO 161-1 and ISO 4065.

Thick tolerance grade.

This document applies to thermoplastic pipes with constant circular cross-section and smooth inner and outer walls, including different materials, different production processes and

Thermoplastic pipes for different intended applications.

Note. Depending on the material and intended application, product standards may select applicable tolerance levels from this document.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations

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

this document.

ISO 161-1 Nominal outer diameter and nominal pressure of thermoplastic pipes for fluid conveyance Part 1.Metric series (Thermo-

Metricseries)

Note. GB/T 4217-2008 Nominal outer diameter and nominal pressure of thermoplastic pipes for fluid transportation (ISO 161-1.1996, IDT)

Note. GB/T 8806-2008 Determination of dimensions of plastic components of plastic piping systems (ISO 3126.2005, IDT)

Note. GB/T 10798-2001 General wall thickness table for thermoplastic pipes (ISO 4065.1996, IDT)

3 Terms and definitions

The following terms and definitions apply to this document.

The terminology databases of ISO and IEC can be accessed at.

3.1

dn

The nominal values of component dimensions, except for thread dimensions, are approximately equal to the manufacturing dimensions of the component.

Note. For pipes complying with ISO 161-1, the nominal outer diameter is equal to the minimum average outer diameter.

3.2

outer diameter

de