



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

GB/T 19473.1-2020

Replacing GB/T 19473.1-2004

**Polybutene (PB) piping system for hot and cold water - Part 1:
General**

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Foreword

GB/T 19473 "Polybutene (PB) Piping System for Hot and Cold Water" is divided into the following parts.

---Part 1.General Provisions;

---Part 2.Pipes;

---Part 3.Pipe fittings;

---Part 5.System applicability.

This part is Part 1 of GB/T 19473.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces GB/T 19473.1-2004 "Polybutene (PB) Piping System for Hot and Cold Water Part 1.General Rules", and

Compared with GB/T 19473.1-2004, the main technical changes are as follows.

--- Deleted "GB/T 19473 does not apply to fire extinguishing systems and non-aqueous fluid delivery systems" in the scope (see.2004 edition

Chapter 1);

---Modified terms and definitions, symbols and abbreviations (see Chapter 3, Chapter 3 of the.2004 edition);

---Added the use condition level 3 (see Table 1);

--- Change "polybutene pipe materials" to "polybutene compounding ingredients" (see Chapter 5, 5.1 in.2004 edition);

---Modified the regulations on the grading of polybutene compound ingredients (see 5.1, 5.1 of the.2004 edition);

---Added "random copolymerization of polybutene (PB-R)", and renamed the original "polybutene (PB)" to "homopolybutene (PB-R)"

H)" (see 5.2);

---Added the requirements for additives in polybutene mixtures (see 5.3);

---Added the color requirements of polybutene compounds (see 5.4);

---Added other performance requirements for polybutene compounding ingredients (see 5.5);

---Added the requirement that the compound manufacturer should provide the tensile modulus of elasticity (see 5.6);

--- Deleted the material recycling regulations (see.2004 edition 5.2);

---Added an informative appendix "Structural changes in this part compared with ISO 15876-1.2017" (see Appendix A);

---Added an informative appendix "The technical differences between this part and ISO 15876-1.2017 and their reasons" (see Appendix B);

---Adjusted Appendix A of the.2004 edition to Appendix C, and added the PB-R prediction intensity reference curve (see Appendix C,.2004

Version Appendix A).

This part uses the redrafting law to amend and adopt ISO 15876-1.2017 ``Plastic Piping System for Cold and Hot Water Polybutene (PB) No. 1

Part. General Provisions.

Compared with ISO 15876-1.2017, this part has many structural adjustments. Appendix A lists this part and ISO 15876-1.

The.2017 chapter number comparison list.

Compared with ISO 15876-1.2017, there are technical differences between this part and ISO 15876-1.2017.The corresponding technical differences and their reasons are given in Appendix B.

List.

This section has made the following editorial changes.

---In order to be consistent with my country's technical standard system, the standard name is changed to "Polybutene (PB) Piping System for Cold and Hot Water Part 1.General then".

Please note that certain contents of this document may involve patents. The issuing agency of this document is not responsible for identifying these patents.

This part was proposed by the China National Light Industry Council.

This part is under the jurisdiction of the National Plastic Products Standardization Technical Committee (SAC/TC48).

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1 Scope

This part of GB/T 19473 specifies the terms and definitions, symbols and abbreviations, and terms of use of polybutene (PB) piping systems for cold and hot water.

Part level, material and hygiene requirements.

This part, together with other parts of GB/T 19473, applies to building cold and hot water pipe systems, including drinking water and heating pipes system.

Regarding the connection of polybutene pipes/pipe fittings for cold and hot water and the connection of polybutene pipes/pipe fittings with other plastic or non-plastic parts

For information, see other parts of GB/T 19473 and related standard documents.

Note. It is the responsibility of the purchaser to select this product appropriately according to its specific application requirements, combined with relevant regulations, standards or specifications.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 1033.1 Determination of the density of plastic non-foam plastics Part 1.Immersion method, liquid pycnometer method and titration method

(GB/T 1033.1-2008, ISO 1183-1:2004, IDT)

GB/T 1033.2 Determination of the density of plastic non-foam plastics Part 2.Density gradient column method (GB/T 1033.2-2010,

ISO 1183-2.2004, MOD)

GB/T 3682.1 Determination of Melt Mass Flow Rate (MFR) and Melt Volume Flow Rate (MVR) of Plastic Thermoplastics

Part 1.Standard method (GB/T 3682.1-2018, ISO 1133-1.2011, MOD)

GB/T 9345.1 Determination of ash content of plastics Part 1.General methods (GB/T 9345.1-2008, ISO 3451-1.1997,

IDT)

GB/T 17219 Safety evaluation standard for drinking water distribution equipment and protective materials

GB/T 18251 Determination of pigment or carbon black dispersion in polyolefin pipes, pipe fittings and mixtures (GB/T 18251-2019,

ISO 18553.2002, MOD)

GB/T 18252 Plastic piping systems use extrapolation to determine the long-term hydrostatic strength of thermoplastic materials in the form of pipes

(GB/T 18252-2020, ISO 9080.2012, IDT)

GB/T 19278-2018 General terms and definitions for thermoplastic pipes, fittings and valves

GB/T 19466.6 Plastic Differential Scanning Calorimetry (DSC) Part 6.Oxidation Induction Time (Isothermal OIT) and Oxidation Induction

Determination of temperature (dynamic OIT) (GB/T 19466.6-2009, ISO 11357-6.2008, MOD)

GB/T 21300 Determination of the opacity of plastic pipes and fittings (GB/T 21300-2007, ISO 7686.2005, IDT)

GB/T 37199.2 Plastic polybutene (PB) molding and extrusion materials Part 2.Sample preparation and performance determination

(GB/T 37199.2-2018, ISO 8986-2.2009, MOD)