



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

GB/T 18993.1-2020

Replacing GB/T 18993.1-2003

**Chlorinated Polyvinyl Chloride (PVC-C) Piping System for Hot
and Cold Water - Part 1: General**

Issued on: November 19, 2020

Implemented on: June 1, 2021

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Foreword

1.2009 chapter number comparison list.

1 Scope

2 Normative references

3 Terms and definitions, symbols, abbreviations

3.1 Terms and definitions

Foreword

GB/T 18993 "Chlorinated Polyvinyl Chloride (PVC-C) Piping System for Hot and Cold Water" is divided into 5 parts.

---Part 1.General Provisions;

---Part 2.Pipes;

---Part 3.Pipe fittings;

---Part 4.Valve;

---Part 5.System applicability.

This part is Part 1 of GB/T 18993.

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

This Part replaces GB/T 18993.1-2003 "Chlorinated Polyvinyl Chloride (PVC-C) Piping System for Cold and Hot Water Part 1.General Rules",

Compared with GB/T 18993.1-2003, the main technical changes are as follows.

---Modified the scope (see Chapter 1, Chapter 1 of the.2003 edition);

---Modified terms and definitions, symbols, and abbreviations (see Chapter 3, Chapter 3 of the.2003 edition);

---Modified the requirements of mixed ingredients (see 5.1, 5.2, 5.4 of the.2003 edition);

---Modified the requirements for the chlorine content of the chlorinated polyvinyl chloride (PVC-C) resin compound, and the chlorinated polychloride used in the production of pipes and fittings

Requirements for the chlorine content of ethylene (PVC-C) compounds (see 5.3, 5.2 in the.2003 edition);

---Deleted the material recycling regulations (see 5.3 of the.2003 edition);

---Adjust Appendix A of the.2003 edition to Appendix C (see Appendix C);

---Added a normative appendix "Verification test method of chlorinated polyvinyl chloride (PVC-C) material failure temperature T_{mal}" (see

Appendix D).

This part uses the redrafting method to amend and adopt ISO 15877-1.2009 "Plastic Piping System for Cold and Hot Water Chlorinated Polyvinyl Chloride

(PVC-C) Part 1.General Provisions.

Compared with ISO 15877-1.2009, this part has more structural adjustments. Appendix A lists this part and ISO 15877-

1.2009 chapter number comparison list.

Compared with ISO 15877-1.2009, this part has technical differences, and the clauses involved in these differences have been passed on the outer margins.

The vertical single line (|) of the position is marked, and a list of the corresponding technical differences and their reasons is given in Appendix B.

This section has made the following editorial changes.

--- Amend the standard name to "Chlorinated Polyvinyl Chloride (PVC-C) Piping System for Cold and Hot Water Part 1.General Provisions".

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).

Drafting organizations of this section. Zhongshan Huanyu Industrial Co., Ltd., Guangdong Liansu Technology Industrial Co., Ltd., Yonggao Co., Ltd., Fujian Set

You Plastic Co., Ltd., Nansu Building Materials Plastic Products (Shenzhen) Co., Ltd., Kangtai Plastic Technology Group Co., Ltd., Youli Holding Group Co., Ltd.

Company, Xinjiang Tianye (Group) Co., Ltd., Shandong Xiangsheng New Material Technology Co., Ltd.

1 Scope

This part of GB/T 18993 specifies the terms and definitions, symbols and abbreviations of

chlorinated polyvinyl chloride (PVC-C) piping systems for cold and hot water

Language, use condition level, material and hygiene requirements.

This part and other parts of GB/T 18993 are applicable to chlorinated polyvinyl chloride (PVC-C) piping systems for building hot and cold water.

Note 1. The purchaser has the responsibility to select this product appropriately according to its specific application requirements, combined with relevant regulations, standards or specifications.

Note 2. For the connection of chlorinated polyvinyl chloride pipes and fittings for cold and hot water, and the connection of chlorinated polyvinyl chloride pipes and fittings with other plastic or non-plastic parts

For information about the connection, please refer to relevant parts of GB/T 18993 and other standard documents.

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 document.

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

GB/T 2918 Standard environment for condition adjustment and testing of plastic specimens (GB/T 2918-2018, ISO 291.2008, MOD)

GB/T 7139 Plastic Vinyl Chloride Homopolymer and Copolymer Determination of Chlorine Content (GB/T 7139-2002, eqv ISO 1158.1998)

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

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

3.1 Terms and definitions

The following terms and definitions defined in GB/T 19278-2018 apply to this document. For ease of use, the following is repeated

Some terms and definitions in GB/T 19278-2018.

3.1.1 Terms and definitions related to geometric dimensions

3.1.1.1

Nominal outer diameter

dn

The nominal value of the outer diameter of the pipe or fitting socket.

[GB/T 19278-2018, definition 2.3.8]

3.1.1.2

(Any point) outer diameter

de

The distance between the two intersection points of the line passing through the center of the pipe and the outer contour of the section on the cross section of the pipe part perpendicular to the axial direction.