



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

GB/T 28799.3-2020

Replacing GB/T 28799.3-2012

**Heat-resistant polyethylene (PE-RT) piping system for hot and
cold water - Part 3: Fittings**

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Foreword

GB/T 28799 "Heat-resistant Polyethylene (PE-RT) 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 3 of GB/T 28799.

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

This part replaces GB/T 28799.3-2012 "Heat-resistant polyethylene (PE-RT) piping system for cold and hot water-Part 3.Pipe fittings", and

Compared with GB/T 28799.3-2012, the main technical changes are as follows.

---Modified the scope of application of the piping system (see Chapter 1, Chapter 1 of the.2012 edition);

--- Added a trade "note" (see Chapter 1);

---Relevant normative references have been revised (see Chapter 2, Chapter 2 of the.2012 edition);

--- Added "Terms, Definitions, Symbols and Abbreviations" (see Chapter 3);

---Added the requirement of pipe fittings "recycled materials should not be used" (see 4.1);

---Added the requirements for the PE-RTII mixed ingredients used in the production of hot spring pipeline systems and central heating secondary pipe network systems (see 4.2);

---Modified product classification (see Chapter 5, Chapter 4 of the.2012 edition);

--- Deleted the content of "The pipe fittings are classified according to the pipe series S the

same as the pipes, according to the provisions of GB/T 28799.2-2012" (see.2012

4.3 of the year edition);

- Modified the color regulations (see 6.1, 5.1 of the.2012 edition);
- The resistance deviation of fused pipe fittings has been increased (see 6.3);
- Modified the schematic diagram of the socket of the hot melt socket connection pipe fitting (see Figure 1, Figure 1 of the.2012 edition);
- Modify the "reference depth of the socket" in Table 1 to "the depth of the socket" (see Table 1, Table 1 of the.2012 edition);
- Deleted "Socket heating depth size", "Maximum socket depth size" and size requirements related to "Tare" in Table 1
(See Table 1 in the.2012 edition);
- Modified "The wall thickness of the main body of the pipe fitting should be greater than the wall thickness of the pipe of the same pipe series S" (see 6.4.5, 4.3 in the.2012 edition);
- Modified the schematic diagram of the socket of the electrofusion connection pipe fittings (see Figure 2, Figure 2 of the.2012 edition);
- Expanded the socket size of the electrofusion connection pipe fittings from the nominal outer diameter dn160mm to dn450mm and increased the relevant dimensions (see Table 2);
- The maximum average inner diameter size of the melting zone has been increased, and the maximum socket depth size of dn16mm~dn160mm has been modified (see table 2, Table 2 of the.2012 edition);
- Added the requirements for the size of the socket end of the pipe fitting (see 6.4.3);
- Added the requirements of flange connection pipe size (see 6.4.4.2);
- Increased the ash content of the pipe fittings, oxidation induction time, oxidation induction time after 95 degrees C/1000h hydrostatic test, and pigment dispersion
Physical and chemical properties (see Table 6);
- Adjust the system applicability into a separate chapter, and delete the specific content of the system applicability requirements (see Chapter 7,.2012 edition
5.7);
- Modified the test method (see Chapter 8, Chapter 6 of the.2012 edition);
- Modified the group batch (see 9.2.1, 7.2.1 of the.2012 edition);

- Modified the grouping (see 9.2.2, 7.2.2 of the.2012 edition);
- Modified the requirements for type inspection (see 9.3, 7.3 of the.2012 edition);
- Modified the item requirements of factory inspection (see 9.4.1, 7.4.1 of the.2012 edition);
- Modified the batch range of the sampling plan (see 9.4.2, 7.4.2 of the.2012 edition);
- Modified the requirements for type inspection (see 9.5, 7.5 in the.2012 edition);
- Modified the judgment rules (see 9.6, 7.6 of the.2012 edition);
- The requirements for marking, packaging, transportation and storage have been revised (see Chapter 10, Chapter 8 of the.2012 edition).

This part uses the redrafting method to refer to ISO 22391-3.2009 "Heat-resistant polyethylene for plastic piping systems for cold and hot water (PE-RT)

Part 3.Pipe Fittings, the degree of consistency with ISO 22391-3.2009 is not equivalent.

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 28799 specifies the terms, definitions, symbols and abbreviations of heat-resistant polyethylene (PE-RT) pipe fittings (hereinafter referred to as "pipe fittings")

Abbreviations, materials, product classification, requirements, system applicability, test methods, inspection rules, signs, packaging, transportation and storage.

This part, together with other parts of GB/T 28799, is applicable to cold and hot water piping systems, including cold and hot water, drinking water for civil and industrial buildings.

Water and heating system, hot spring pipeline system and central heating secondary pipe network system, etc.

This section applies to PE-RTI and PE-RTII pipe fittings.

The PE-RTI pipe fittings in this part are not suitable for hot spring piping systems and central heating secondary pipe network systems.

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 2828.1 Sampling inspection procedure by attributes Part 1. Batch inspection sampling plan retrieved by acceptance quality limit (AQL)

(GB/T 2828.1-2012, ISO 2859-1.1999, IDT)

GB/T 2918 Standard environment for condition adjustment and testing of plastic specimens (GB/T 2918-2018, ISO 291.2008, 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 6111-2018 Determination of internal pressure resistance of thermoplastic piping systems for fluid transportation (ISO 1167-1.2006,

ISO 1167-2.2006, ISO 1167-3.2007, ISO 1167-4.2007, NEQ)

GB/T 7306.1 55° sealed pipe thread Part 1. Cylindrical internal thread and tapered external thread (GB/T 7306.1-2000,

eqv ISO 7-1.1994)

GB/T 7306.2 55° Sealed Pipe Thread Part 2. Conical Internal Thread and Conical External Thread (GB/T 7306.2-2000,

eqv ISO 7-1.1994)

GB/T 8806 Plastic piping system plastic parts size determination (GB/T 8806-2008, ISO 3126.2005, IDT)