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

GB/T 18742.2-2017

Replacing GB/T 18742.2-2002

**Polypropylene (PP) piping systems for hot and cold water
installations - Part 2: Pipes**

冷热水用聚丙烯管道系统 第2部分：管材

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Foreword

GB/T 18742 "hot and cold water with polypropylene pipe system" is divided into three parts.

--- Part 1. General principles;

--- Part 2. Pipe;

--- Part 3. Pipe fittings. This section GB/T 18742 Part 2. This section drafted in accordance with GB/T 1.1-2009 given rules. This Part replaces GB/T 18742.2-2002 "Polypropylene piping systems for hot and cold water Part 2. Pipe", and GB/T 18742.2- Compared to.2002, the main technical changes are as follows:

--- Polypropylene pipe material as raw materials modified polypropylene mixture as raw materials (see Chapter 1);

--- Removed the scope of the "industrial and civil hot and cold water" and "do not use water as a medium used in the system of pipe" (see.2002 Year version of Chapter 1);

- Increase the content of the trade note (see Chapter 1);
 - Added and updated the relevant normative references (see Chapter 2);
 - The "raw materials used in the production of pipe should be consistent with the requirements of GB/T 18742.1 polypropylene pipe material" be amended to "use for the production of pipe Polypropylene compounding materials shall comply with the requirements of Chapter 6 and Chapter 7 of GB/T 18742.1-2017 (see Chapter 4);
 - This section will "PP-H" were revised to "beta crystal PP-H";
 - Pipe by polypropylene compound ingredients added beta crystal PP-RCT pipe (see 5.1);
 - Pipe by tube series points increased S
- 6.3 series, the "Appendix B tube series S and nominal pressure PN relationship" to "appendix C tube series S and the maximum allowable working pressure (20 °C, 50 years) "(see 5.2, Appendix C);
- Recalculated the value of the S series of pipe series and increase the choice of beta crystal PP-RCT pipe series S (see Chapter 6);

1 Scope

GB/T 18742.2 is the second part of the Chinese standard for polypropylene hot and cold water piping systems and it covers the pipe itself. PP-R is the dominant material for domestic water plumbing in China, used in the great majority of new apartments, so this is one of the highest volume plastic pipe standards in the world. What the standard has to guarantee is a fifty year life at temperature and pressure, and everything in it serves that: the classification by application class and design pressure, the requirements on the material and its designation, the dimensions, wall thicknesses and tolerances by pipe series, the appearance and the opacity, the mechanical requirements including the hydrostatic strength at the several temperature and time combinations that establish the long-term behaviour, the impact resistance, the longitudinal reversion and the thermal stability, together with the test methods, the sampling and inspection rules and the marking. For a pipe maker, an installer or a developer in China, this is the acceptance text.

GB/T 18742 provisions of this part of the polypropylene compound as raw material, the extrusion of circular cross-section polypropylene pipe (with (Hereinafter referred to as the pipe) definition, symbols and abbreviations, materials, product classification, pipe series S value selection, requirements, test methods, inspection rules and standards Log, packaging, transportation, storage. This section with GB/T 18742.1, GB/T 18742.3 together apply to the building hot and cold water piping systems, including drinking water and heating Pipeline system and so on.

Note. It is the purchaser's responsibility to properly use this product in the light of its specific

application requirements, in combination with the relevant regulations, standards or specifications. This section does not apply to fire extinguishing systems.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 2828.1-2012 Sampling procedures for inspection - Part 1 - Batch-by-lot inspection by acceptance quality limit (AQL) Plan (ISO 2859-1.1999, IDT)

GB/T 2918-1998 plastic sample conditioning and testing of the standard environment (idt ISO 291.1997) Thermoplastics - Determination of melt mass flow rate and melt volume flow rate (idt ISO 1133. 1997)

GB/T 6111-2003 Thermoplastics pipes for fluid transport - Internal pressure resistance test method (ISO 1167.1996, IDT)

GB/T 6671-2001 Determination of longitudinal shrinkage of thermoplastic pipes (eqv ISO 2505.1994)

GB/T 8806-2008 Plastics piping systems - Measurement of dimensions of plastic parts (ISO 3126.2005, IDT)

GB/T 9345.1-2008 Determination of plastic ash - Part 1. General method (ISO 3451-1.1997, IDT)

GB/T 10798-2001 Thermoplastic plastic pipe wall thickness table (idt

ISO 4065.1996) Pull - off test for connection of polyethylene pressure pipes to pipe fittings

GB/T 17219 drinking water distribution equipment and protective materials safety evaluation criteria

GB/T 18251-2000 Polyolefin pipes, fittings and mixed materials Determination of pigment and carbon black dispersion Polypropylene piping systems for hot and cold water

GB/T 18742.1-2017 - Part 1. General (

ISO 15874-1.2013, MOD) Polypropylene piping systems for hot and cold water