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

GB/T 18742.3-2017

**Polypropylene (PP) piping systems for hot and cold-water
installations -- Part 3: Fittings
(English Translation)**

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Table of Contents

- Foreword
- 1 Scope
- 2 Normative references

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 3.

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

This Part replaces GB/T 18742.3-2002 "hot and cold water polypropylene pipe system Part 3. Fittings" and GB/T 18742.3-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 system of media used in pipe fittings" (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 fittings shall comply with the requirements of GB/T 18742.1" be amended to "polypropylene pipe for the production of pipe fittings should be Meet the requirements of Chapter 6 and Chapter 7 of GB/T 18742.1-2017, the use of recycled materials is not allowed "(see Chapter 4);

--- This section will "PP-H" were revised to "beta crystal PP-H";

--- By polypropylene compound ingredients added beta crystal PP-RCT pipe fittings (see 5.1);

--- The "pipe fittings by pipe series S classification and the same pipe, according to GB/T 18742.2 requirements. The pipe wall thickness should not be less than the same tube

Series S pipe wall thickness "was revised to" pipe fittings by tube S classification 5.2 GB/T 18742.2-2017 same. tube the wall thickness of the piece shall be greater than the wall thickness of the pipe of the same pipe series "(see 5.3);

--- Added "tube color is generally gray" (see 6.1);

--- Figure 1 to do a simplified treatment, marked chamfer R, but not sure R value, Table 1, the largest non-circularity, nominal diameter size has been revised (See 6.3.1);

--- Redrawing Figure 2 (see 6.3.2);

--- Separate lists the hydrostatic strength of the pipe, according to the hydrostatic pressure of the pipe to modify the hydrostatic test pressure on the pipe made a revision, by Adds the hydrostatic strength of the beta-crystal PP-RCT fitting. The new tube series S6.3 is only suitable for the beta-crystal PP-RCT (see 6.4).

--- Increased ash, melting temperature, oxidation induction time, 95 °C/1000h hydrostatic test oxidation induction time, pigment Requirements for bulk (see 6.5);

--- Modify the melt flow rate and the corresponding change rate of polypropylene compound requirements (see 6.5);

--- Remove the opacity requirements, into Table 4 in this section and modified as light transmittance (see 6.5);

--- Increasing the physical and chemical properties of beta-type PP-RCT pipe fittings requirements (see 6.5);

--- Added "Notes on system suitability of fittings and tubes mechanically connected" (see 6.7.1);

--- Recalculate the test pressure value of the internal pressure test and increase the internal pressure test requirements of the beta-type PP-RCT pipe (see 6.7.2);

--- Remove the "prestress calculation method", the "prestress" into Table 6 (see 6.7.3);

--- Increased beta crystal PP-RCT prestress (see 6.7.3);

--- Added and modified test methods (see Chapter 7);

--- Remove Table 7 in GB/T 18742.3-2002 (see the 2002 edition of Table 7);

--- Increased inspection classification (see 8.1);

--- Modify the group approval requirements (see 8.2);

--- Increased stereotypes inspection project requirements (see 8.3);

--- Increase the factory inspection project requirements (see 8.4)

--- Modify the normal inspection once sampling plan, the quality level of qualified 6.5 to

receive quality limit (AQL) 4.0, an increase of "batch Wai "(see 8.4.2);

--- Increased control point inspection requirements (see 8.5);

--- Increased type test requirements (see 8.6);

--- Modify the type test time requirements (see 8.6.3);

--- Modify "non-conformity batch" to "non-conforming batch (or product)" (see 8.7);

--- "product name. Should be noted that the name of raw materials" be amended to "raw material name" (see 9.1.1);

--- Marks increased the content of non-Ming pipe fittings logo requirements (see 9.1.2);

--- Removed to prevent confusion during use, should not be marked PN value of the terms (see 2002 version 9.1.3);

--- Removed "the quality of each box does not exceed 25kg" (see 2002 version 9.2);

--- Increasing the informative appendix "This part of ISO 15874-3:2013 compared with the structural changes" (see Appendix A);

--- Added informative appendix "This part and ISO 15874-3:2013 technical differences and their causes" (see Appendix B).

This section uses the redrafted law to amend the use of ISO 15874-3:2013 "plastic pipe systems for hot and cold water equipment polypropylene third Part. Tube "(in English).

This section compared with ISO 15874-3:2013 in the structure of more adjustments. Appendix A lists the clauses and sections of this section ISO 15874-3:2013 subsection number control list.

This section there are technical differences compared with ISO 15874-3:2013, Appendix B gives the corresponding technical differences and their causes Table.

This section uses the currently valid national standards, instead of the ISO 15874-3:2013 cited documents.

Please note that some of this document may be patentable. The issuing agencies of this document do not bear the responsibility of identifying these patents.

This part is proposed by China National Light Industry Council.

This part of the National Plastics Standardization Technical Committee (SAC/TC48) centralized.

The main drafting units in this section. Shanghai White Butterfly Pipe Technology Co., Ltd., Wing High Co., Ltd., Zhejiang Weixing new building materials Co., Ltd., Chengdu Sichuan Road Plastic Group Co., Ltd., Zibo Jie Lin Plastic Pipe Co., Ltd., Wuhan Jinniu Economic Development Co., Ltd., River North Po Road Seven Star Plastic Co., Ltd., Beijing

Technology and Business University, Shanghai Tianli Industry (Group) Co., Ltd.

1 Scope

GB/T 18742 provisions of this part of polypropylene compound as raw material, the injection molding of polypropylene pipe (hereinafter referred to as the pipe) Definitions, Symbols and Abbreviations, Materials, Product Classification, Requirements, Test Methods, Inspection Rules and Marking, Packaging, Transport, Storage.

This section with GB/T 18742.1, GB/T 18742.2 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 (idtISO 291.1997)

Thermoplastics - Determination of melt mass flow rate and melt volume flow rate (idtISO 1133.

1997)

GB/T 6111-2003 Thermoplastics pipes for flow resistance - Internal pressure test method (ISO 1167:1996, IDT) GB/T 7306 (all parts) -2000 55 ° sealing pipe thread (eqvISO 7-1.1994) Plastics piping systems - Determination of dimensions of plastic parts (ISO 3126:2005, IDT) GB/T 8806-2008 GB/T 9345.1-2008 Determination of plastic ash - Part 1. General method (ISO 3451-1:1997, IDT) 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 or 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 GB/T 18742.2-2017 - Part 2 - Pipe (ISO 15874-2:2013, MOD) Plastics - Differential scanning calorimetry (DSC) - Part 3. Determination of temperature and enthalpy of fusion and crystallization GB/T 19466.3-2004 (ISO 11357-3:1999, IDT) GB/T 19466.6-2009 plastic differential scanning calorimetry (DSC) Part 6. Oxidation induction time (isothermal OIT) and oxygen Induction of temperature (dynamic OIT) determination (ISO 11357-6:2008,