



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

GB/T 38008-2019

Gate valves of thermoplastics materials

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Foreword

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

This Standard adopts the re-drafting method in the modification and adoption of ISO

16139.2006 Industrial Valves - Gate Valves of Thermoplastics Materials.

In comparison with ISO 16139.2006, this Standard has the following structural changes.

- "Symbols" is added to "Terms and Definitions" (see 3.4);
- Chapter 4 "Requirements" of ISO 16139.2006 are divided into "Materials", "Design" and "Requirements" (see Chapter 4 ~ Chapter 6);
- The contents of 4.7.2 and 4.8 in ISO 16139.2006 are deleted;
- Chapter 5 "Inspection Procedures" of ISO 16139.2006 is divided into "Test Methods" and "Inspection Rules" (see Chapter 7 and Chapter 8);
- Chapter 6 of ISO 16139.2006 is deleted;
- Chapter 7 "Markings" and Chapter 8 "Transportation and Storage" of ISO

16139.2006 are combined into "Markings, Packaging, Transportation and Storage" (see Chapter 9);

- The comparison between nominal outer diameter d_n and nominal size DN is

added (see Appendix A);

---Appendix A of ISO 16139.2006 is adjusted to Appendix B.

In comparison with ISO 16139.2006, the main technical differences and the causes for these differences are as follows.

---The pressure class is deleted (see Chapter 1), and uniform use of metric units is adopted;

---In terms of Normative References, this Standard makes specific adjustments with technical differences, so as to adapt to the technical conditions of China.

The condition of the adjustments is intensively reflected in Chapter 2

"Normative References". See the specific adjustments below.

? GB/T 7306.1-2000 and GB/T 7306.2-2000, which equivalently adopt international standard, are used to replace ISO 7-1.1994 (see 6.3.1.3);

? GB/T 12222-2005, which modifies and adopts international standard, is used to replace ISO 5210.2001 (see 5.3.2);

? GB/T 27726-2011, which modifies and adopts international standard, is used to replace ISO 9393-2.2005 (see 6.4);

? Appendix A of GB/T 28494-2012, which modifies and adopts international standard, is used to replace EN 12570.2000 (see 5.4.2);

? Appendix B of GB/T 28494-2012, which modifies and adopts international standard, is used to replace ISO 8233.1998 (see 7.8);

? Appendix C of GB/T 28494-2012, which modifies and adopts international standard, is used to replace ISO 8659.1999 (see 7.9);

? ISO 228-1.2000, ISO 898-1.1999, ISO/TR 10358.1993, ISO 12092.2000, ISO 12162.1995, EN 558-1.1995, EN 558-2.1995, EN 736-1.1995, EN 736-2.1997, EN 736-3.1999, EN 1092-1.2001, EN 1267.1997, EN 1759-1.2004, EN 12107.1997 and EN 12266-1.2003, which are not quoted in the Standard, are deleted;

? The reference of GB/T 2828.1-2012 is added (see 8.3.2);

- ? The reference GB/T 2918-2018 is added (see 7.1);
- ? The reference of GB/T 8806-2008 is added (see 7.3);
- ? The reference of GB/T 17219 is added (see 6.11);
- ? The reference of GB/T 19278-2018 is added (see Chapter 3);
- ? The reference of GB/T 21300-2007 is added (see 7.10);
- ? The reference of GB/T 30832-2014 is added (see 7.6);
- The requirements for shell materials "PPO/PPE, PPSU and PA" are added (see 4.1);
- The requirements of 4.1.2 b) in ISO 16139.2006 are modified. in accordance with the definitions of terms in GB/T 19278-2018, the dimensional requirements for clearway valve, full bore valve and reduced bore valve are provided (see 6.3.2);
- The number of cycles of fatigue strength of gate valves with $dn < 63$ mm is raised from 5,000 times to 15,000 times; the number of cycles of fatigue strength of gate valves $dn \geq 63$ mm is 5,000 times, which is consistent with that in ISO

16139.2006 (see 6.9).

This Standard makes the following editorial modifications.

- The title of this Standard is modified into Gate Valves of Thermoplastics Materials;
- The specifications and dimensions are expressed in nominal outer diameter dn (see Chapter 1);
- This Standard incorporates the amendments of ISO 16139.2006 / FD Amd I and modifies the derating factor fr . The clauses involved in these amendments have been marked by a vertical double line (??) on the outer margin (see Table 1 of 4.3.2).

Please be noted that certain content of this document might involve patents. The institution issuing this document does not undertake the responsibility of identifying these patents.

This Standard was proposed by China National Light Industry Council.

This Standard shall be under the jurisdiction of National Technical Committee 48 on Plastic Products of Standardization Administration of China (SAC/TC 48).

The main drafting organizations of this Standard. Shanghai Sanshang Ximbang Technology Co., Ltd.; Beijing Building Materials Testing Academy Co., Ltd. (National Water-saving Appliance Product Quality Supervision and Inspection Center); Yonggao Co., Ltd.; Zhejiang Zhongcai Pipes Technology Co., Ltd.; NAM SOK Building Material & Plastic Products (Shenzhen) Co., Ltd.; Cangzhou Mingzhu Plastics Co., Ltd.; Shanghai White Butterfly Pipe Technology Co., Ltd.; China Lesso Group Holdings Limited; Baolu Seven Star Pipe Industry Co., Ltd.; Shanghai Tianli Industry (Group) Co., Ltd.; Zhejiang Xinda Plastic Pipe Co., Ltd.

1 Scope

This Standard specifies the terms, definitions and symbols, materials, design, requirements, test methods, inspection rules, markings, packaging, transportation and storage of gate valves of thermoplastics materials (hereinafter referred to as gate valves).

2 Normative References

The following documents are indispensable to the application of this document. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

GB/T 2828.1-2012 Sampling Procedures for Inspection by Attribute - Part 1. Sampling Schemes Indexed by Acceptance Quality Limit (AQL) for Lot-by-lot Inspection (ISO 2859-1:1999, IDT)

3 Terms, Definitions and Symbols

What is defined in GB/T 19278-2018, and the following terms and definitions are applicable to this document.