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

GB/T 44576-2024

Thermoplastics valves - Torque - Test method

热塑性塑料阀门 扭矩 试验方法

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

This document is modified to adopt ISO 8233:2024 "Torque test method for thermoplastic valves".

Compared with ISO 8233:2024, this document has many structural adjustments. See the attached table for the structural number changes between the two documents.

Record A.

This document has more technical differences than ISO 8233:2024.

The technical differences and their causes are listed in Appendix B.

The following editorial changes were made to this document.

1 Notes, and 2 to the scope of ISO 8233:2024 are deleted; -

Added notes on the terms "opening and closing parts", "closing torque", "opening torque" and "nominal diameter" (see Chapter 3) and Notes to Table 2 (see Table 2);

Changed the note to the term "nominal outside diameter" (see 3.8); -Changed the note in 5.3 of ISO 8233:2024; -Footnote b in Table 1 of ISO 8233:2024 has been deleted; -the note to 6.3 of ISO 8233:2024 has been deleted. -

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies.

in this document.

GB/T 19278 General terms and definitions for thermoplastic pipes, fittings and valves

3 Terms and definitions

The terms and definitions defined in GB/T 19278 and the following apply to this document.

Opening and closing parts obturator the moving parts inside the valve are used to open and block the medium channel, adjust the channel size, and change the flow direction of the medium.

Note: According to the structure and movement characteristics of the opening and closing parts, they are divided into valve balls, butterfly plates, diaphragms, valve cores, gate plates, etc.

Inlet chamber

The space between the valve inlet and the opening and closing parts.

Outlet chamber

The space between the valve opening and closing parts and the outlet.

closing torqueclosing torque the torque required to fully close the valve at a specified flow rate (or flow velocity).

Note: The definition here is the closing torque in a narrow sense, which refers to the torque corresponding to the end of the closing action and the moment when the valve is fully closed. The closing torque in a broad sense includes the closing process the torque that maintains the rotation of the opening and closing parts.

Opening torque opening torque the torque applied from the closed state to the opening moment under the specified pressure.

Note: The definition here is the opening torque in a narrow sense, which refers to the "starting torque" required for the opening and closing parts to start moving; the broad opening torque includes it includes the rotational torque from the start of the opening and closing parts to the process of full opening.

Running torque

The torque required to maintain the movement of the valve opening and closing parts during the valve closing or opening process.