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

GB/T 47163-2026

**Basic environmental testing procedures for fireworks - Free fall
and damp heat cyclic test methods**

烟花爆竹基本环境试验规范 自由跌落和交变湿热试验方法

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the China National Light Industry Council. This document is under the jurisdiction of the National Technical Committee on Standardization of Fireworks and Firecrackers (SAC/TC149). This document was drafted by: Nanning Customs Technology Center, Beihai Public Inspection and Testing Center, Beihai Customs Comprehensive Technical Service Center, and Beihai Customs. Municipal Product Quality Inspection Institute, Pubei County Transportation Bureau. The main drafters of this document are. Wu Junyi, He Jinfeng, Yi Xiaodong, Zhang Xuan, Zhang Yunlian, Lu Yuanyuan, Du Qidong, Chen Hongcai, and Ma Yucheng. Ye Jianxia, Luo Haichun, Chen Shaohua, Wu Rui, and Mai Yunjia. Basic Environmental Testing Specifications for Fireworks and Firecrackers Free fall and alternating damp heat test methods

1 Scope

GB/T 47163-2026 is the Chinese national standard covering what fireworks endure before they are lit - the drops of handling and transport and the damp heat of a warehouse and a container crossing the tropics, after which the device must still work as intended and not more violently. First edition, in force since 1 June 2026. It was issued on 27 February 2026 and has been in force since 1 June 2026, as a first edition. The document is under the responsibility of the China National Light Industry Council. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself,

delivered in full with the English translation.

This document specifies the basic requirements for the test conditions, test methods, and result judgment of free-fall tests on fireworks and firecrackers, as well as the alternating... The basic requirements for the test chamber (room) for damp heat testing, the severity level, the test procedure, and the result judgment. The free-fall environmental testing specifications in this document apply to the transport packaging of fireworks and firecrackers, sealed semi-finished fireworks and firecrackers, and finished fireworks and firecrackers. Products and fuses. The alternating damp heat test environment specification in this document applies to the transport packaging, sales packaging, and fuses of fireworks and firecrackers. Finished firecrackers and pyrotechnic agents.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB 10631 Quality and Safety of Fireworks and Firecrackers

GB/T 41644-2022 Test Methods for Fireworks and Firecrackers

GB 50161 Safety Standard for Engineering Design of Fireworks and Firecrackers

3 Terms and Definitions

The terms and definitions defined in GB 10631 and the following terms and definitions apply to this document.

3.1 drop height The height between the test surface and the nearest part of the sample when the test sample is suspended before being dropped.

4.1.1 Equipment and Site Perform the test according to the test conditions in

6.3.1 of GB/T 41644-2022.

4.1.2 Fall Height Different drop heights can be selected for the test depending on the specific test requirements. This also depends on the form of the test sample (sealed semi-finished product, finished product, or...). For transport packaging (e.g.), select the drop height from the following values. 2m, 3m, 5m, 8m and 12m.

4.2 Test Equipment Drop test frame. Effective height $\geq 12\text{m}$, capable of remotely controlling the free release of test samples from different set heights, with precise height control.