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

GB/T 29468-2024

Replacing GB/T 29468-2012

**Cleanroom and associated controlled environments-Envelope
structure sandwich panel**

洁净室及相关受控环境 围护结构夹芯板

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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 replaces GB/T 29468-2012 "Technical Guide for Application of Sandwich Panels in Cleanrooms and Related Controlled Environment Enclosures" and Compared with GB/T 29468-2012, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

The scope of application has been changed (see Chapter 1, Chapter 1 of the 2012 edition);

Added the terminology of enclosure structure (see 3.1), changed the terminology of sandwich panel (see 3.2, 3.1 of 2012 edition), fire resistance limit (see 3.3, 3.2 of the 2012 edition), bonding strength (see 3.4, 3.3 of the 2012 edition), flexural bearing capacity (see 3.5, 3.4), deleted the terms of non-thermal damage and smoke damage index (see 3.5 and 3.6 of the 2012 edition);

The technical requirements for size (see 4.1, 2012 edition 4.1), technical requirements for raw materials (see 4.2, 2012 edition 4.2.1, 4.2.2), technical requirements for bonding performance (see 4.5, 4.4 of the 2012 edition), technical requirements for flexural bearing capacity (see 4.6, 4.5 of the 2012 edition), technical requirements for fire resistance (see 4.7, 4.6 of the 2012 edition), technical requirements for combustion performance (See 4.8, 4.7 of the 2012 edition), and deleted the requirements for non-thermal damage in smoke toxicity (see 4.8.2 of the 2012 edition);

The test methods for appearance quality and dimensional deviation (see 5.1, 5.1 of the

2012 edition), the test method for heat transfer coefficient (see 5.3, 5.2 of the 2012 edition), test method for resistance limit (see 5.6, 5.5 of the 2012 edition), test method for combustion performance (See 5.7, 5.6 of the 2012 edition), Test methods for smoke toxicity (see 5.8, 5.8 of the 2012 edition);

Changed the installation requirements for sandwich panels (see 6.7, 6.6 of the 2012 edition); - The requirements for factory inspection and type inspection have been changed (see Chapter 7, Chapter 7 of the 2012 edition); - Changed the labeling requirements (see 8.1, 8.2 of the 2012 edition); - The requirements for sandwich panel packaging spacers (8.3.4 of the 2012 edition) have been deleted.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed and coordinated by the National Technical Committee for Standardization of Cleanrooms and Related Controlled Environments (SAC/TC 319).

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The previous versions of this document and the documents it replaces are as follows.

First published in 2012 as GB/T 29468-2012; This is the first revision.

Cleanrooms and related controlled environments Enclosure structure sandwich panels

1 Scope

This document specifies the technical requirements, installation and maintenance of sandwich panel products such as wall panels and ceiling panels used in cleanrooms and related controlled environment enclosures.

It describes the rules for packaging, inspection, labeling, packaging, transportation and storage, and the corresponding testing methods.

This document is applicable to the quality control of sandwich panels such as wall panels, ceiling panels, etc. of enclosure structures in clean rooms and related controlled environments.

2 Normative references

GB/T 191

GB/T 2828.1

GB/T 5464

GB 8624-2012

GB/T 9978.1

GB/T 12754

GB/T 13475

GB/T 20285-2006

GB/T 23932-2009

GB/T 33544

GB/T 36372-2018

GB 50073

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Envelope structure

A general term for interior parts supported by a frame.

Note. Including ceilings, walls, floors, doors and windows and their related devices, various interfaces and seals, etc.

[Source. GB/T 36372-2018, 3.3]

3.2 Sandwich panel

It is composed of a high-strength outer surface sheet (metal or non-metal) and a light-weight and low-strength insulation core material bonded between the panels.

Composite panels that can meet certain technical requirements.