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

GB/T 29899-2024

Replacing GB/T 29899-2013

**Determination of the emission of volatile organic compounds
from wood-based panels and furnishing products-Small
chamber method**

人造板及其制品中挥发性有机化合物释放量试验方法 小型释放舱法

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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.

This document replaces GB/T 29899-2013 "Test method for emission of volatile organic compounds from wood-based panels and their products - Small-scale emission test method" Compared with GB/T 29899-2013, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- Changed the scope (see Chapter 1, Chapter 1 of the 2013 edition);
- Changed the definition of volatile organic compounds and added the definition of total aldehyde and ketone compounds (see Chapter 3, 2013 edition, chapter);
- Changed the specimen preparation to sample and specimen, and added the common load rate (see Chapter 6, Chapter 6 of the 2013 edition);
- Changed the test conditions to test conditions, and added common test conditions (see 7.1.2, 7.1.2 of the 2013 edition);

- Changed the sampling time to be determined by the test cycle (see 7.4, 7.4 of the 2013 edition);
- Changed the general rules for air sampling and deleted the sampling clause for formaldehyde (see 7.6, 7.6 of the 2013 edition);
- Changed the sampling analysis and deleted the formaldehyde analysis clause (see 7.6, 7.7 of the 2013 edition);
- Added calculation and expression of mass release rate (see 8.3);
- Small release capsule system and small release capsule system example are merged into general technical conditions for small release capsule system (see Appendix A,

Appendix A and Appendix D of the 2013 edition);

- Added formaldehyde-DNPH derivatives and revised the chromatographic elution diagram of typical aldehydes and ketones-DNPH derivatives (see Appendix C, 2013

Appendix C of the 2011 edition);

- Added test conditions for commonly used wood-based panels and their products (see Appendix D).

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 was proposed by the State Forestry and Grassland Administration.

This document is under the jurisdiction of the National Technical Committee for Standardization of Wood-Based Panels (SAC/TC198).

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

- First published in 2013 as GB/T 29899-2013;
- This is the first revision.

Volatile organic compounds in wood-based panels and their products Release test method
Small release chamber method

1 Scope

This document describes the volatile organic compounds (VOCs), total volatile organic compounds, aldehydes and ketones in wood-based panels and their products.

Small release chamber test method for the release of aldehydes and total ketone compounds.

This document applies to volatile organic compounds (VOCs), total volatile organic compounds (TVOCs) and Determination of the release of substances, aldehydes and ketones and total aldehydes and ketones.

2 Normative references

GB/T 6682

GB/T 18259-2018

GB/T 36055

JJF1101-2019

3 Terms and definitions

The terms and definitions defined in GB/T 18259-2018 and the following apply to this document.

3.1 Air exchange rate airchangerate

The ratio of the volume of air entering the release chamber per unit time to the effective volume of the release chamber.

3.2 ventilation rate

The volume of air entering the release chamber per unit time.

3.3 Surface wind speed airvelocity

The air flow velocity on the surface of the specimen in the release chamber.

3.4 Test periodtestperiod

The length of time between the start of the experiment and the end of sampling.

3.5

All organic compounds released from the test specimen and detected in the air at the outlet of the release chamber.