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

GB/T 46486-2025

**Greenhouse gases - Quantification requirement and method for
carbon footprint of products - Furniture**

温室气体 产品碳足迹量化方法与要求 家具

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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 was prepared by the National Furniture Standardization Technical Committee (SAC/TC480) and the National Carbon Emission Standardization Technical Committee (SAC/TC548). Under the same jurisdiction. This document was drafted by: Zhejiang Provincial Institute of Quality Science, Shanghai Institute of Quality Supervision and Inspection Technology Co., Ltd., and China Quality Certification Center. Certification Center Co., Ltd., Changhua Chemical Technology Co., Ltd., China Environmental United (Beijing) Certification Center Co., Ltd., Chinese Academy of Forestry Sciences Research Institute of Wood Industry, Yongyi Furniture Co., Ltd., Shenzhen Changjiang Furniture Co., Ltd., Yucai Holding Group Co., Ltd., and Sheng'ao Technology Co., Ltd., Huizhou Chengye Furniture Co., Ltd., Gujia Home Furnishings Co., Ltd., Shandong Guangming Yuandi Children's Furniture Technology Co., Ltd. Limited Company, Jiangxi Yuanda Insurance Equipment Industry Group Co., Ltd., Qingdao Youwu Technology Co., Ltd., Guangdong Zhaosheng Furniture Co., Ltd., Huzhou City Quality and Technical Supervision and Inspection Institute (Huzhou Fiber Quality Monitoring Center), Shandong Provincial Product Quality Inspection Institute, Zhejiang Provincial Ecological Environment Protection Institute Carbon Development Center, Dongguan Quality Supervision and Testing Center of Guangdong Province, Beijing Institute of Product Quality

Supervision and Inspection, Guangdong Product Quality Supervision and Inspection Inspection and Research Institute, Chengdu Product Quality Supervision and Inspection Institute, Qiannianzhou New Material Technology Group Co., Ltd., Guangdong Huasheng Furniture Group Co., Ltd. Limited Liability Company, Zhejiang Jiechang Linear Drive Technology Co., Ltd., Rizhao Aosibeng Decoration Materials Co., Ltd., Shandong Luli Home Furnishings Co., Ltd. The company, Jilin Provincial Institute of Product Quality Supervision and Inspection, China Construction Science & Industry Group Co., Ltd., Shandong Academy of Forestry Sciences, Chengdu Huihong Technology Group Limited Liability Company, Sichuan Debang Bopai Smart Home Co., Ltd., Zhejiang Taihesheng New Material Technology Co., Ltd., Zhejiang Shengnuomeng Gujia Sponge Co., Ltd. Limited Company, Ouke Intelligent Technology (Zhejiang) Co., Ltd., Quzhou Daoyuan Textile Technology Co., Ltd., Kolcano Group Co., Ltd., Dongyang Yu Qiantang Palace Rosewood Furniture Co., Ltd., Zhejiang Qianxin Intelligent Furniture Co., Ltd., Hangzhou Baibiao Testing Technology Co., Ltd., Songyuan City Yao CaiShu New Materials Technology Co., Ltd., Yongheng Technology Group Co., Ltd., Hangzhou Qiandao Lake Yongzhen Wood Industry Co., Ltd., and Jiaxing Hengli Integrated Ceiling Co., Ltd. Limited Liability Company, Fangyuan Certification Group Zhejiang Co., Ltd. The main drafters of this document are. Zhong Wenhan, Wang Jin, Luo Ligang, Xie Mingjun, Sun Li, Xu Yidong, Yao Chenlan, Yang Lu, Chen Xixi, and Lao Wanli. Xu Jinmei, Chen Xi, Zhang Qiang, Su Shangzhou, Du Xiubing, Long Zhoubo, Tu Jiahui, Wang Xianrong, Xu Di, Feng Yongfang, Chen Shichao, Wang Jianbiao, Yang Shengkun Ren Yanhong, Jing Jun, Wang Hongqiang, Sun Shudong, Wu Rong, Lu Tonghua, Wang Zhuochun, Lu Xiaojian, Sun Wu, Wang Qing, Yang Jun, Yu Hao, He Mingming, Zeng Zhizhong Yang Liemao, Ma Minjie, Yang Baoqing, Qian Hongxiang, Xi Ming, Zhou Mingjian, Qiu Guijian, Ma Jiaojiao, Guo Yongqian, Wu Jiabing, Zhan Xiabo, Chen Wanghua, Jin Xuehui, Lu Hongbao.

This document is based on the principles, requirements, and guidelines established in the existing domestic standards for life cycle assessment, GB/T 24040 and GB/T 24044. The guidelines aim to set specific requirements for quantifying the carbon footprint of furniture products. This document focuses only on a single type of environmental impact, namely climate change, and does not assess other potential environmental impacts arising from the product life cycle. The potential social and economic impacts during the product lifecycle are not evaluated. This document provides quantified product carbon footprint information, which on the one hand provides buyers with reliable and comparable carbon footprint information, and on the other hand... Provide data support for producers to continuously improve the carbon footprint performance of their products. Organizations issuing product carbon footprint statements should ensure that the data is obtained from third parties. Independent verification is conducted to increase the accuracy and credibility of the report. To facilitate domestic and international exchange, and in accordance with the relevant requirements of the Intergovernmental Panel on Climate Change (IPCC), the values in this document are... It is expressed in the form of "International Unit of Measurement for

Substance (Element)" or "Substance (Element) International Unit of Measurement", such as kgCO₂ representing kilograms of CO₂. Carbon oxide, tCH₄ represents tons of methane, Nm³ represents cubic meters under standard conditions, etc. Methods and requirements for quantifying the carbon footprint of greenhouse gas products furniture

1 Scope

GB/T 46486-2025 is the Chinese national standard covering the footprint of a piece of furniture - the wood or steel and the panel it is made from, the finishing and the adhesives, the transport of a bulky low-density product, the use phase and the end of life, and the carbon stored in the timber and how it is accounted. First edition, under the China National Light Industry Council. In force from 1 May 2026. Issued on 5 October 2025, it has been in force since 1 May 2026.

This document specifies the purpose, principles, scope, inventory analysis, impact assessment, and results interpretation for quantifying the carbon footprint of furniture products. Explanation, product carbon footprint quantification report and product carbon footprint statement. This document applies to the quantification of the carbon footprint of furniture products.

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/T 24025-2009 Environmental Labelling and Declarations Type III Environmental Declaration Principles and Procedures

GB/T 24040-2008 Principles and Framework for Environmental Management Life Cycle Assessment

GB/T 24044-2008 Requirements and Guidelines for Environmental Management Life Cycle Assessment

GB/T 24067-2024 Requirements and Guidelines for Quantifying the Carbon Footprint of Greenhouse Gas Products

GB/T 28202-2020 Furniture Industry Terminology

GB/T 32150 General Rules for Greenhouse Gas Emission Accounting and Reporting by Industrial Enterprises

GB/T 32151.20-2024 Greenhouse Gas Emission Accounting and Reporting Requirements

Part

3 Terms and Definitions

GB/T 24025-2009, GB/T 24040-2008, GB/T 24044-2008, GB/T 24067-2024, GB/T 28202-2020. The terms and definitions defined in GB/T 32150, GB/T 32151.20-2024, and the following terms and definitions apply to this document.

3.1 furniture In daily life, work, or social activities, it serves to provide a place for people to sit, lie down, recline, or lean against, or to divide and decorate space, or to support and store items. A type of appliance that can perform certain functions. [Source: GB/T 28202-2020, 2.1]

3.2 Greenhouse gases (GHG) Naturally occurring and human-generated elements in the atmosphere that can absorb and disperse pollutants produced by the Earth's surface, atmosphere, and clouds. Gaseous components of radiation with wavelengths in the infrared spectrum.

Note. The greenhouse gases mentioned in this document only include carbon dioxide (CO₂) and methane (CH₄).

3.3 The sum of GHG emissions and GHG removals in the product system, expressed in carbon dioxide equivalents, is based on the single factor of climate change. Environmental impact types are subject to life cycle assessment. [Source: GB/T 24067-2024, 3.1.1, with modifications]