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# NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA



## GB/T 32151.40-2025

## Greenhouse gas emission accounting and reporting requirements - Part 40: Building waterproof material enterprises

温室气体排放核算与报告要求 第40部分：建筑防水材料生产企业

**Issued on: January 24, 2025** **Implemented on: August 1, 2025**

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Standardization Administration of the PRC**

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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 is part 40 of GB/T 32151.GB/T 32151 has been published in the following parts.

1.Power generation enterprises;

2.Grid enterprises;

3.Magnesium smelting enterprises;

4.Aluminium smelting enterprises;

5.Iron and steel production enterprises;

6.Civil aviation enterprises;

7.Flat glass production enterprises;

8.Cement production enterprises;

9.Ceramic production enterprises;

10.Chemical production enterprises;

11.Coal production enterprises;

12.Textile and clothing enterprises;

## 1 Scope

China's national requirements for greenhouse gas emission accounting and reporting by producers of building waterproofing materials. It is Part 40 of GB/T 32151 and specifies the calculation steps, the determination of the accounting boundary and emission sources, the accounting requirements and emission calculation, the data quality management, and the content and format of the report, with a boundary schematic, a report format template, default values for fossil fuel parameters, a steam enthalpy table, a data quality control plan template and a normative annex on the selection of the electricity carbon dioxide emission factor. The sector covers modified bitumen membranes, polymer sheet membranes and liquid-applied waterproofing coatings, and its accounting question is an unusual one. Its principal raw material is bitumen, which is a fossil hydrocarbon - but it is a raw material rather than a fuel, and the carbon in it stays in the product and goes onto the roof rather than into the atmosphere. So a plant that consumes thousands of tonnes of a petroleum product a year has a comparatively small reported emission, because the accounting counts what is oxidised rather than what is bought. What the plant does emit comes from heating: bitumen must be melted and held hot to be modified with polymer and coated onto the carrier, and that heat comes from fuel or from electricity. Beyond that the operations are mixing, coating, laminating and winding, all of them electrical and none of them large. The result is a sector whose direct emissions are dominated by process heating and whose indirect emissions are dominated by purchased electricity, with no process emission term at all - which is why the calculation clause here is shorter than for the mineral-based building material parts of the series. Issued on 24 January 2025 and in force since 1 August 2025.



This document specifies the calculation steps, calculation boundaries and emission source determination, calculation requirements and requirements and emission calculations, data quality management requirements, and report content and format. This document is applicable to greenhouses produced by building waterproof materials such as asphalt waterproof materials, polymer waterproof materials, cement-based waterproof materials, etc. Accounting and reporting of gas emissions.

## 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 to This document.

GB/T 213 Method for determination of calorific value of coal

GB/T 384 Determination of calorific value of petroleum products

GB/T 11062 Calculation method for calorific value, density, relative density and Wobbe index of natural gas

GB 17167 General rules for the allocation and management of energy metering instruments in energy-consuming units

GB/T 24851 Requirements for the deployment and management of energy metering equipment in the building materials industry

GB/T 32150 General principles for accounting and reporting of greenhouse gas emissions from industrial enterprises JJG195 Verification procedures for continuous cumulative automatic weighing instruments (belt scales) JJG1118 Verification Procedure for Electronic Truck Scale (Weighing Instrument Load Measuring Instrument Method) JJG2063 Liquid flow meter calibration system table JJG2064 Gas Flow Metering Equipment Calibration System Table

## 3 Terms and definitions

The terms and definitions defined in GB/T 32150 and the following apply to this document.

3.1 Greenhouse gas The natural and human-caused gases in the atmosphere that absorb and emit radiation from the Earth's surface, atmosphere, and clouds. The gaseous component of radiation with wavelengths in the infrared spectrum.

Note. The greenhouse gases referred to in this document include only carbon dioxide (CO2). [Source: GB/T 32150-2015, 3.1, modified]

3.2 The total amount of greenhouse gases (measured in mass) released into the atmosphere during a specific period of time. [Source: GB/T 32150-2015, 3.6]