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

GB 32276-2025

Replacing GB 19881-2005

**Safety specifications for dust explosion protection in textile
industry**

纺织工业粉尘防爆安全规范

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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. This document supersedes GB 19881-2005 "Safety Regulations for Dust Explosion Prevention in Flax Fiber Processing Systems" and GB 32275-2015 "Textile Industry..." This document integrates the "Technical Specification for Safety Devices of Fireproof and Explosion-proof Pipelines" and GB 32276-2015 "Safety Regulations for Dust Explosion Prevention in Textile Industry". Compared with GB 32276-2015, the contents of GB 32275-2015 and GB 19881-2005, except for structural adjustments, are as follows: Aside from editorial changes, the main technical changes are as follows:

---Added "Dust Removal System", "Dust Removal Equipment", "Pre-filtration", "Fine filtration", "Dust Collector", "Compactor", "Mobile Vacuum Cleaner", and "Dust Collection Pipe" Nine terms and definitions related to "channel" and "return air ditch" (see 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, and 3.10);

---The terms "textile industry" and "dust removal ditch" have been deleted (see sections 3.3 of the 2015 edition);

---The requirements for classifying hazardous areas for textile fiber dust explosions have been changed (see Chapter 4, Chapter 4 of the.2015 edition);

---Added general requirements for dust explosion prevention in the textile industry (see Chapter 5);

---The requirements for the layout of dust collection rooms have been changed (see 6.1, 6.2, and

5.2.1 in the.2015 version);

---The requirements regarding the ground surface in the factory building structure have been changed (see 6.6,

5.3.2 of the.2015 version);

---Added requirements regarding dust collection ducts and return air trenches (see 6.9);

---The general provisions for dust control have been removed (see 6.1 in the.2015 edition);

1 Scope

GB 32276-2025 is the Chinese national standard on safety specifications for dust explosion protection in textile industry, in the field of environment and health protection, safety. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 31 October 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2026. Classification: ICS 13.230, CCS C67. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the classification and scope of dust explosion hazard zones in the textile industry, general requirements for dust explosion prevention, building (structure) requirements, and ventilation... Requirements for ventilation systems, dust removal systems, explosion control measures, electrical systems, and operational safety management are described, along with corresponding verification methods. This document applies to dust explosion hazard areas and dust collection systems in the textile industry that use cotton, linen, wool, blended fabrics, synthetic fibers, silk, etc. as raw materials. Design, operation, and safety management.

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 3836.1 Explosive Atmospheres - Part

3 Terms and Definitions

The terms and definitions defined in GB/T 15604 and the following terms and definitions apply to this document.

3.1 dust collection room Buildings and structures for installing dust removal equipment and supporting fans.

Note. This includes the enclosed pressure-bearing shell of the honeycomb dust removal equipment.

3.2 dust collection system A system for capturing solid particles in a gas-solid two-phase flow, consisting of a dust collection hood, air duct, dust removal equipment, fan, and control device.

Note. Mobile vacuum cleaners and pneumatic conveying systems in textile processes are not considered dust removal systems.

3.3 Dust removal equipment A device for separating and capturing dust from dust-laden gas.

15 Design, Selection and Installation of Electrical Installations

GB 3836.16 Explosive Atmospheres - Part

16 Inspection and Maintenance of Electrical Installations

GB 12158 General requirements for the prevention of electrostatic discharge accidents

GB 15577 Safety Regulations for Dust Explosion Prevention

GB/T 15604 Dust Explosion Prevention Terminology

GB 50016 Code for Fire Protection Design of Buildings

GB 50057 Code for Design of Lightning Protection of Buildings

GB 50058 Design Code for Electrical Installations in Explosive Atmospheres

GB 50565 Fire Protection Design Code for Textile Engineering

GB 55037 General Code for Fire Protection of Buildings

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