

ICS 91.040.20

CCS P 34



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

**GB/T 50481-2019**

---

**Code for design of cotton spinning and weaving factory**

**Issued on: September 25, 2019**

**Implemented on: January 1, 2020**

---

**Issued by: Ministry of Housing and Urban-Rural Development of the  
People's Republic of China;  
State Administration for Market Regulation**

## Table of Contents

- 1 General
- 2 terms

### 1 General

1.0.1 In order to unify the technical requirements for the construction engineering design of cotton textile factories, guide and standardize the design of cotton textile factories, and achieve the goals of advanced technology, reasonable economy, energy saving, environmental protection, safety and reliability, according to the current national laws and regulations, production and construction experience and textile science New technological achievements, formulate this standard.

1.0.2 This standard is applicable to the design of new construction, expansion and reconstruction of pure cotton, chemical fiber and other short fiber blended spinning and weaving factories.

1.0.3 Cotton textile factory design should adopt clean production technology and technical measures such as energy saving, environmental protection, and safe production to improve energy utilization rate and comprehensive utilization of resources, and should meet the requirements of energy saving, environmental impact, safety and health assessment or evaluation report.

1.0.4 Cotton textile factories built in phases should implement the principles of overall planning, combination of long-term and short-term, and focus on the short-term according to the construction scale and development plan.

1.0.5 In addition to this standard, the design of cotton textile factories should also comply with the current relevant national standards.

#### 2.0.1 linear density

Indicates the thickness of the yarn, and the national legal unit of measurement is expressed in tex.

#### 2.0.2 Moisture regain

The moisture content of textile materials and textiles measured under specified conditions is called moisture regain, expressed as the percentage of the difference between the wet weight and dry weight of the sample to the dry weight.

### **2.0.3 Conventional moisture regain**

For the needs of inspection and trade, the moisture regain specified for textile materials and textiles is called the public moisture regain.

### **2.0.4 cleaner production**

By continuously taking measures such as improving design, using clean energy and raw materials, adopting advanced technology and equipment, improving management, and comprehensive utilization, we can reduce pollution from the source, improve resource utilization efficiency, and reduce or avoid production, service, and product use. The generation and discharge of pollutants to reduce or eliminate hazards to human health and the environment.

### **2.0.5 ring spinning**

The process of continuously drafting, twisting and winding the fiber sliver output by the rollers with rollers, spindles, steel rings and steel rings as spinning components.

### **2.0.6 rotor spinning**

Commonly known as air spinning (air spinning). Spinning technology that uses the negative pressure airflow in the spinning cup to loosen and transport the fibers, and uses the high-speed rotation of the spinning cup to condense the fibers and twist them into yarn.