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## Safety technical requirements for building decorative stone

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# Foreword

This document is drafted in accordance with the provisions of GB/T 1.1-2020 Directives for Standardization - Part 1: Structure and Drafting Rules for Standardization Documents.

It should be noted that certain contents of this document may involve patents. The issuing authority of this document shall not be liable for identifying such patents.

This document is proposed and administered by the Ministry of Industry and Information Technology of the People's Republic of China.

## Safety technical requirements for building decorative stone

### 1 Scope

This document specifies the safety technical requirements, test methods, inspection rules and other requirements for building decorative stone.

This document applies to natural stone and artificial stone for building decoration, as well as the adhesives and protective agents used in their production.

### 2 Normative References

The contents of the following documents, which are incorporated by means of normative references in this document, constitute its indispensable provisions. Among these documents, for dated referenced documents, only the edition corresponding to the specified date shall apply to this document; for undated referenced documents, the latest edition (including all amendment sheets) shall apply to this document.

GB/T 1725 Paints, Varnishes and Plastics — Determination of Non-volatile Matter Content

GB 6566 Limit Requirements for Radionuclides in Building Materials

GB/T 6750 Paints and Varnishes — Determination of Density — Pycnometer Method

GB/T 9966.2 Test Methods for Natural Stone — Part 2: Determination of Flexural Strength After Drying, Water Saturation and Freeze-thaw Cycles

GB/T 13890 Classification and Terminology for Natural Stone

GB/T 23985-2009 Paints and Varnishes — Determination of Volatile Organic Compound (VOC) Content — Difference Method

GB/T 23986.2-2023 Paints and Varnishes — Determination of Volatile Organic Compound (VOC) and/or Semi-volatile Organic Compound (SVOC) Contents — Part 2: Gas Chromatography Method

GB/T 23990-2009 Determination of Benzene, Toluene, Ethylbenzene and Xylenes Contents in Coatings — Gas Chromatography Method

GB/T 23993 Determination of Formaldehyde Content in Water-based Coatings — Acetylacetone Spectrophotometry  
 GB/T 24264 Adhesives for Facing Stone  
 GB 30982 Limit Requirements for Hazardous Substances in Building Adhesives  
 GB 33372-2020 Limit Requirements for Volatile Organic Compounds in Adhesives  
 GB/T 34682-2017 Determination of Volatile Organic Compound (VOC) Content in Coatings Containing Reactive Thinners  
 GB/T 35160.2 Test Methods for Artificial Stone — Part 2: Determination of Flexural Strength  
 GB/T 35165 Terminology and Classification for Artificial Stone  
 GB/T 41953 Paints and Varnishes — Determination of Water Content in Coatings — Gas Chromatography Method  
 JC/T 887 Epoxy Adhesives for Dry-hanging Stone Curtain Walls

### 3 Terms and Definitions

The terms and definitions defined by GB 6566, GB/T 13890 and GB/T 35165, as well as the following ones, shall apply to this document.

#### 3.1 building decorative stone

Stone products used for building, municipal and other engineering projects as well as other decorative purposes.

Note: Including natural stone and artificial stone.

## 4 Safety Technical Requirements

### 4.1 Building Decorative Stone

#### 4.1.1 Limit Requirements for Radionuclides.

The limit requirements for radionuclides in natural granite shall comply with the provisions specified in Table

**Limit Requirements for Radionuclides in Natural Granite**

Item	Interior Surfaces of Class I Civil Buildings <sup>1</sup>	Interior Surfaces of Class II Civil Buildings <sup>2</sup> and Industrial Buildings
Internal Exposure Index ( $I_{Ra}$ )	$\leq 1.0$	$\leq 1.3$
External Exposure Index ( $I_{\gamma}$ )	$\leq 1.3$	$\leq 1.9$

<sup>1</sup> Refers to applications in places such as residential buildings, elderly apartments, nurseries, hospitals, schools, office buildings and hotels.

<sup>2</sup> Refers to applications in places such as shopping malls, cultural and entertainment venues, bookstores,

libraries, exhibition halls, gymnasiums, public transportation waiting rooms, restaurants and barbershops.

#### 4.1.2 Slab Thickness

The thickness of polished slabs and fine-finished slabs of natural stone and artificial stone for dry-hanging installation shall comply with the requirements specified in Table 2.

**Table 2 Thickness Requirements for Polished and Fine-finished Slabs of Natural and Artificial Stone for Dry-hanging Installation (Unit: mm)**

Item	Natural Granite	Natural Marble	Natural Limestone and Sandstone		Resin-bonded Artificial Stone	Inorganic-bonded Artificial Stone
			Flexural Strength $\geq$ 8.0 MPa	Flexural Strength: $4.0 \text{ MPa} \leq \text{Value} \leq 8.0 \text{ MPa}$		
Thickness for Interior Finishing	$\geq 20$	$\geq 25$	$\geq 25$	$\geq 30$	$\geq 20$	$\geq 20$
Thickness for Exterior Finishing	$\geq 25$	$\geq 35$	$\geq 35$	$\geq 40$	—	$\geq 25$