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**BUILDING MATERIALS INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

JC/T 547-2017

**Adhesives for ceramic tiles
(English Translation)**

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1 Scope

This standard specifies the terms and definitions, classification, code and marking, general requirements, technical requirements, test methods, inspection rules, marking, packaging, transportation and storage of adhesives for ceramic tile (hereinafter referred to as adhesives).

This standard applies to adhesives for internal and external wall and floor ceramic tiles.

This standard does not include technical requirements for guiding the design and installation of ceramic tiles.

This standard does not include the evaluation or recommendation of the design and use of ceramic tiles.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document;

for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

GB 175 Common Portland cement

GB/T 4100-2015 Ceramic tiles

JC/T 681 Planetary cement mortar mixer

JC/T 958-2005 Flow table for determine mortar fluidity

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Fixing surface

Fixing surface for ceramic tiles.

3.2

Ceramic tiles

Building ceramic products in plate or block form, made of clay, feldspar and quartz as main raw materials, used to cover walls and floors.

3.3

Cementitious adhesive (C)

Powdered mixture composed of hydraulic cementitious materials, aggregates, additives, etc., which needs to be mixed with water or other liquid mixtures when used.

3.4

Dispersion adhesive (D)

Organic adhesive composed of water-based polymer emulsion, additives, mineral fillers, which can be used directly after mixing.

3.5

Reaction resin adhesive (R)

Single-component or multi-component mixture composed of synthetic resin, mineral filler, additives, which is cured by chemical reaction and is used after mixing evenly.

3.6

Notched trowel

Notched tool that can apply adhesive to the fixing surface and the back of ceramic tiles in a combed strip with uniform thickness.

3.7

Application to one surface only

The adhesive layer applied only to the fixing surface, with uniform thickness obtained by combing with a notched trowel.

4.1 Classification and code

4.1.1

Ceramic tile adhesives are divided into three types, represented by English letters.

4.1.2

Ceramic tile adhesives are classified according to different properties. The codes for these classifications are represented by the following numbers and letters.

4.1.3

Ceramic tile adhesives can be combined into different types of products according to fundamental characteristic, additional characteristic, special characteristic. The product code consists of three parts. The first part uses letters to indicate the type of product;

4.2 Marking

The product is marked in the following order. standard number, product category, code.

Example 1. Anti-slip ordinary cementitious adhesive that meets the requirements of this standard is marked as.

5 General requirements

The production and use of the products included in this standard shall not cause harmful effects on human body, organisms, environment;

6.1 Cementitious adhesive (C)

Cementitious adhesive shall meet the fundamental characteristic required by C1 in Table 2.

6.2 Requirements for dispersion adhesive (D)

All dispersion adhesives shall comply with the basic performance requirements given in D1 in Table 4 and the additional characteristic of (enhanced) products given in D2.

6.3 Requirements for reactive resin adhesive (R)

All reactive resin adhesives shall meet the fundamental characteristic requirements specified in R1 in Table 6 and the additional characteristic of R2 (enhanced) products.

Table 7 lists the special characteristic required of adhesives in specific use environments.

7.1 Specimen

The specimen shall be at least 2 kg of representative samples.

7.2 Test conditions

The standard test conditions are ambient temperature $(23 \pm 2) ^\circ\text{C}$, relative humidity $(50 \pm 5)\%$, the circulating wind speed in the test area shall be less than 0.2 m/s. Other test conditions are specified in 7.10 ~ 7.13 of this standard. The test time is the time interval from the time when the adhesive is mixed with water or liquid to the time when the tensile adhesion strength is measured. The curing time deviation of all test samples is shown in