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

JC/T 746-2007

**Concrete tiles
(English Translation)**

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Foreword

This standard is the revision of JC 746-1999 "Concrete tiles".

The main changes in this standard as compared with JC 746-1999 are as follows.

- REDEFINE the technical indicators and judgment rules of the bearing capacity;
- ADD the thermal resistance performance and test methods;
- ADD the technical indicators and test methods of the mass standard deviation;
- ADD the provisions on the radionuclide limit of the concrete tiles as manufactured from industrial waste residue;
- ADD the inspection report filling format;
- SIMPLIFY the test methods of covering width;
- CANCEL the provisions of dividing into three levels - excellent products (A), first class products (B), and qualified products (C) - based on the physical

and mechanical properties;

Appendix A, Appendix B, Appendix C, Appendix D, and Appendix E of this standard are normative appendixes, AND Appendix F is an informative appendix.

This standard shall, from the date of implementation, replace JC 746-1999.

This standard was proposed by China Building Materials Industry Association.

This standard shall be under the jurisdiction of the National Standardization Technical Committee for Cement Products.

The responsible drafting organizations of this standard. Liaoning Institute of Building Materials Science, Lafarge Roofing System (China) Limited.

The participating drafting organizations of this standard. China Construction Northeast Design and Research Institute, Changzhou Huamei Building Materials Co., Ltd., Wuxi Fuji Colored Tiles Co., Ltd., Harbin Langen Colored Tiles Manufacturing Limited Liability Company, Shanghai Sheshanhong New Building Materials Co., Ltd., Quanzhou Qunfeng Machinery Manufacturing Co., Ltd., Liaoning Xinxin Group Building Materials Co., Ltd., Beijing Yipinhong Concrete tiles

1 Scope

This standard specifies the definition, structure, symbol, abbreviation, classification, specification, identification, general rules, requirements, sampling, test methods, inspection rules, marking, product quality certificate, instruction manual, packaging, storage and transportation of concrete tiles.

This standard is applicable to concrete sloping roof tiles made of cement, fine aggregate, water, and other main raw materials through mixing, extrusion, hydrostatic molding, or other molding methods AND their matching concrete fitting tiles. The concrete tiles may be native tiles, colored tiles or surface treated tiles.

2 Normative references

The provisions in following documents become the provisions of this Standard through reference in this Standard. For the dated references, the subsequent amendments (excluding corrections) or revisions do not apply to this Standard; however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB 175 Portland cement and ordinary portland cement

GB 1344 Portland blast furnace slag cement, Portland pozzolana cement, and Portland fly-ash cement

GB/T 1596 Fly ash used for cement and concrete

GB/T 2015 White portland cement

GB 6566 Limit for radionuclides in building materials

GB 8076 Concrete admixtures

GB 12958 Composite portland cement

GB/T 14684 Sand for construction

JC/T 539 Pigments used in concrete and mortar and their test method

JC/T 870 Colored portland cement

JGJ 63 Standard of water for concrete

YBJ 205-1984 Technical requirements for blast furnace heavy crushed slag for concrete use

3 Definitions, structures, symbols and abbreviations

The following terms and definitions apply to this standard.

3.1 Definition

3.1.1

Concrete tiles

It is a general term of roofage tiles and fitting tiles made of concrete.

3.2.2

Concrete roofage tiles

It refers to the building product made of concrete AND paved on the sloping roof to function as tiled roof together with the fitting tiles (shortly referred to as the roofage tiles).

3.1.2.1

Concrete roofage wavy tiles

It refers to the tiles paved on the sloping roof, for which the cross section is in wave shape (shortly referred to as wavy tiles).

3.2.2.2

Concrete roofage flat tiles

It refers to the tiles paved on the sloping roof, for which the cross section edge is in straight line shape (shortly referred to as flat tiles).

3.1.3

Concrete fittings tiles

It refers to the building products made of concrete AND paved on the specific location of the sloping roof to satisfy the special functional

Bx - Lower base width of the roofage tile for which the front projection is right angle trapezoidal, in millimeters (mm);

b1 - Covering width of the roofage tile, in millimeters (mm);

b2 - Overlap width of the roofage tile, in millimeters (mm);

d - Ridge height of the roofage tile, in millimeters (mm);

F - Bearing capacity, in Newton (N);

F1, F2, F3,... Fn - Measured bearing capacity value of single sample, in Newton (N);

Fav - Measured average of the carrying capacity, in Newton (N);

Favf - Measured average of the bearing capacity after freezing, in Newton (N);

Fe - Standard value of bearing capacity, in Newton (N);