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

GB/T 16546-2020

Replacing GB/T 16546-1996

**General rules for packing, marking, transport, storage and
quality certificates of shaped refractory**

定形耐火材料包装、标志、运输、储存和质量证明书的一般规定

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1 Scope

GB/T 16546-2020 is the Chinese national standard on general rules for packing, marking, transport, storage and quality certificates of shaped refractory, in the field of glass and ceramics industries. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 2 June 2020 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2021. Classification: ICS 81.080, CCS Q40. 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 Standard specifies general rules for packing, marking, transport, storage and quality certificates of shaped refractory. This Standard applies to dense and heat-insulating shaped refractory. The relevant requirements of prefab (preform) products can also refer to this Standard.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this document. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 191, Packaging - Pictorial marking for handling of goods

GB/T 1413, Series 1 freight containers - Classification, dimensions and ratings

GB/T 2934, General-purpose flat pallets for through transit of goods - Principal dimensions and tolerances

GB/T 3830, Calendered film (sheet) from flexible PVC

GB/T 4122.1, Packaging terms - Part 1: Basic

GB/T 4122.4, Packaging terms - Part 4: Materials and containers

GB/T 4892, Dimensions of rigid rectangular packages - Transport packages

GB/T 4995, General-purpose flat pallets for through transit of goods - Performance requirements and selection of tests

GB/T 6388, Transport package shipping mark

GB/T 6543, Single and double corrugated boxes for transport packages

GB/T 6544, Corrugated fiberboard

GB/T 9846, Plywood for general use

GB/T 12626.2, Hard fibreboard - Part 2: General requirements for all board types

3 Terms and definitions

Terms and definitions determined by GB/T 4122.1 and GB/T 4122.4 are applicable to this document.

4.1 General

4.1.1 The packing materials that are used for product packaging shall meet the corresponding national environmental, safety and occupational health requirements and standards, and can be recycled.

4.1.2 Products shall be packaged separately according to variety, designation, brick size; packing list shall be attached to the package.

4.1.3 Before packing, properly place the products according to the brick size and the number of packages, to ensure that the products are stacked securely. At the same time, consider padding and rain and moisture-proof materials.

4.1.4 According to customer packing requirements, perform combined packing according to the product masonry position, level and number.

4.1.5 Fragile, vulnerable and special refractory products, if necessary, can be packed piece by piece before the external packing.

4.2 Packing types and technical requirements There are generally four types of packing,

pallets, wooden boxes, corrugated boxes and containers, as shown in Table 1. According to user requirements, other packing forms can be selected.

6.2 The transport machine shall be safe, firm and clean, and shall be equipped with rain and moisture-proof facilities.

6.3 When transporting, it shall be handled with care; it's not allowed to roll or be thrown.

6.4 Bulk products or product packages in larger batches (when the transportation mileage is far) should be transported in containers.

7 Storage

7.1 The packaged products should be stored in the warehouse; pay attention to ventilation, and not expose them to damp, rain, wind or sun.

7.2 The stacking of packaged products shall ensure the quality, stability and safety, and be convenient for counting, handling, shoveling and lifting operations.

7.3 The stacking of packaged products shall be carried out according to variety, designation, brick number and grade.

7.4 Boxes and bundles of bricks shall be stacked into a stable stack. The stacking height shall not exceed 5 m during mechanical handling, and shall not exceed

1.6 m during manual stacking; but the stacking height of pallets in plastic packaging shall not exceed 3 m.

7.5 The storage conditions shall meet the special requirements of the product.

8 Quality certificate

Each batch of products shall be accompanied by a quality certificate, which indicates:

- a) name of the manufacturer;
- b) name of the buyer;
- c) product name, designation grade and batch number;
- d) quality inspection special seal and issuer;
- e) inspection result;