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**LIGHT INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

QB/T 4624-2013

**Thermal insulation containers - Foam boxes
(English Translation)**

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Table of Contents

Foreword...	3
1 Scope...	4
2 Normative references...	4
3 Terms and definitions...	4
4 Requirements...	6
5 Test methods...	8
6 Inspection rules...	11
7 Marks, packaging and storage...	12

Foreword

This Standard was drafted in accordance with the rules given in GB/T

1.1-2009.

Capacity requirements and test methods, drop test of this Standard shall refer to EN 12546-2.20000.

This Standard was proposed by China Light Industry Federation.

This Standard shall be under the jurisdiction of National Mouth Glass Enamel Standardization Center of China.

The drafting organizations of this Standard. Pinghu Yingru Insulation Container Industry Co., Ltd., Donghua University, National Eyewear Break Bad Claw Porcelain Version of The Child Supervision and Inspection Center, Ningbo Huasheng Electric Appliance Co., Ltd., Yuyao Kewang Cold Storage Technology Co., Ltd., Pinghu Product Private Enterprises Supervision and Inspection.

Main drafters of this Standard. Qiu Xiaotao, Sun Huanbao, Zhang Nini, Xiong Xiaohu, Ling Shiguan, Shao Huajun, Yan Jiangqin, Shen Xiuli, Lv Qi.

Thermal insulation containers - Foam boxes

1 Scope

This Standard specifies the terms and definitions, requirements, test methods, inspection rules, marks, packaging and storage of foam boxes.

This Standard is applicable to thermal insulation containers including insulation (cold storage) boxes and barrels for storage of pre-packaged food and/or beverages, which use plastic inner and outer first filled with insulation material to achieve heat insulation effect.

2 Normative references

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

GB/T 2035, Terms and definitions for plastics (GB/T 2035-2008, ISO 472.1999, IDT)

GB/T 2828.1, Sampling procedures for inspection by attribute - Part 1.

Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection (GB/T 2828.1-2012, ISO 2859-1.1999, IDT)

QB/T 2919, Case and bag - Test method for resistance to fatigue of pull rod

QB/T 2920-2007, Case and bag - Test method for traveling

3 Terms and definitions

For the purposes of this document, the terms and definitions defined in GB/T

3.1 foam box

a plastic container with an inner container (inner liner) and an outer protective layer (shell) or an inner and outer layer integrally formed with a layer of filler in the middle to reduce heat transfer between the outer and the inner container

NOTE Usually, incubators are used to store pre-packaged food and/or beverages, etc..

insulation barrels are used for direct storage of drinks into water, and direct drinking

through the water switch.

3.2 nominal capacity

nominal internal available capacity

NOTE In liters (L).

3.3 sealing cover

a container cover to prevent the beverage, water and other liquid leakage,
playing sealing effect

NOTE Normally, the sealing cap is provided with a sealing ring.

3.4 drainage port

a hole or nozzle set to discharge the water inside the insulation (cold storage)
box, which can be sealed in non-draining state

3.5 color heterogeneity

non-design changes in color on the same piece

[GB/T 2035-2008, 2.173]

3.6 flash

flashing

a) during the filming, a portion of the molten material which escapes from
the material chamber;

b) excessive plastic that exudes between mold joint surfaces.

[GB/T 2035-2008, 2.402]

3.7 orange peel

irregular pitting surface which looks pimple, pinhole and pit accumulated state,
similar to orange peel

[GB/T 2035-2008, 2.659]

3.8 dished

a symmetry distortion defect displayed on the flat or curved part of a plastic product, which usually appears dished

5.5.1 Pour 1/3 of the nominal capacity of water into the sample. Cover the

sample lid. Lock the lock. In the normal use state, shake the sample up and down at a distance of (200 ± 50) mm for 25 times in the time of (15 ± 2) s.

Check whether the switch, the switch connection, the drain, the seal and other part is sealed, with or without leakage.

5.5.2 Fill the sample with water. Flat it on the platform with paper. After 30

min, check for leakages on all parts.

5.6 Handle fastness

In the sample, load a weight 2.5 times the mass of the water (equally distributed at the bottom of the sample). Lift the handle to make the sample off the ground. After 30 min, check the state of the handle.

For double handle or even handle sample, balanced lifting shall be carried out.

5.7 Rod resistance to fatigue

Carry out the test in accordance with QB/T 2919.

5.8.1 Static load test. in the sample, load a weight 2.5 times the nominal

mass of water mass. Set the moving wheel down to the ground. Lift the other end of the handle up so as to make the bottom of the sample and the ground into a $(45 \pm 2)^\circ$ angle.

5.8.2 Exercise test. in the sample, load a weight of 1/2 of full water mass.

Carry out the test according to Method A in QB/T 2920-2007. After 4 km travel, check the moving wheel and the wheel axle.