

ICS 81.060.20

CCS Y 24



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

GB/T 23397-2009

Product of geographical indication - Ru ware

地理标志产品 汝瓷

Issued on: March 30, 2009

Implemented on: October 1, 2009

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

1 Scope
2 Normative references
3 Terms and definitions
4 Scope of protection of the geographical indication product
5 Types, sizes and grades
6 Requirements
7 Inspection methods
8 Inspection rules
9 Marking, packaging, transport and storage
Annex A (normative) Map of the area of protection of Ru ware
Annex B (informative) Manufacturing process of Ru ware

1 Scope

This standard specifies the terms and definitions, the scope of protection of the geographical indication product, the types and sizes, the grades, the requirements, the inspection methods, the inspection rules and the packaging, marking, transport and storage of Ru ware.

This standard applies to Ru ware approved for protection by the administrative department for quality supervision, inspection and quarantine under the Provisions for the Protection of Products of Geographical Indication.

This standard does not apply to special artistic Ru ware or to Ru ware products agreed upon between the industrial and trading parties.

3 Terms and definitions

The terms and definitions established in GB/T 3303 and GB/T 5000 and the following apply to this standard.

3.1 Ru ware. Ceramic products produced within the area specified in Clause 4 of this standard from the principal raw materials of the administrative area currently under Ruzhou City, Henan Province and of the administrative areas of the eight townships of Daying, Xiaoqi, Shangjiuwu, Zhaozhuang, Chengguan, Yangzhuang, Shiqiao and Zhangbaqiao in Baofeng County, whose glaze uses iron oxide as its principal colouring agent and whose glaze surface, after firing in a high-temperature reducing atmosphere, takes on a colour

keyed to sky blue with a texture like jade.

4 Scope of protection of the geographical indication product

The scope of protection of Ru ware as a geographical indication product is limited to the area approved by the administrative department for quality supervision, inspection and quarantine under the Provisions for the Protection of Products of Geographical Indication, that is, the administrative area currently under Ruzhou City, Henan Province and the administrative areas of the eight townships of Daying, Xiaoqi, Shangjiuwu, Zhaozhuang, Chengguan, Yangzhuang, Shiqiao and Zhangbaqiao in Baofeng County, Henan Province, as shown in Annex A.

5 Types, sizes and grades

5.1 Types. According to the form and the use of the product, Ru ware is divided into vessels, sculptures and other types.

5.2 Sizes. The size of a product is calculated from the dimension of its largest part and is divided into extra large, large, medium and small. For vessels, sculptures and other types the classes are: extra large, over 500 mm; large, 300 mm to 500 mm; medium, 150 mm to less than 300 mm; small, less than 150 mm.

5.3 Grades. According to the colour effect and the appearance quality of the Ru ware, products are divided into treasure grade, fine grade and qualified product.

6 Requirements

6.1.1 Source of the raw materials. The principal raw materials for producing Ru ware, namely clay, quartz, black feldspar, yellow feldspar, calcite, dolomite and plant ash, shall come from the administrative area currently under Ruzhou City, Henan Province and from the administrative areas of the eight townships of Daying, Xiaoqi, Shangjiuwu, Zhaozhuang, Chengguan, Yangzhuang, Shiqiao and Zhangbaqiao in Baofeng County.

6.1.2 Body clay. Moisture: not more than 25 %. Fineness: residue on a 250 mesh sieve less than 3 %. The chemical composition of the body clay, given as ranges of content in per cent, is: SiO₂ not more than 65; Al₂O₃ not less than 30; K₂O plus Na₂O not less than 1.2; CaO not more than 1.6; MgO not more than 0.3; Fe₂O₃ not more than 1.4.

6.2 Production process. See Annex B.

6.3.1 Colour. Ru ware products are keyed to sky blue; the principal glaze colours are sky blue, azure, moon white and pea green. They are fired from raw materials containing iron oxide minerals in a reducing atmosphere, and the colour of a product shall be substantially uniform overall, with no obvious difference. Sky blue glaze: a pale sky blue, pure and quiet. Azure glaze: bluer and heavier than sky blue glaze, with a thicker glaze layer. Moon white

glaze: paler and whiter than sky blue glaze. Pea green glaze: the colour of a mung bean, clear through to the bottom.

6.3.2 Glaze quality. The glaze surface is smooth and lustrous, with a texture like jade.

6.3.3 Crackle. The glaze surface carries a fine crackle (tableware, tea ware and wine ware need not be crackled); the pattern is fine, resembling a cicada wing or an ice fracture, with a strong sense of depth.

6.3.4 View within the glaze. Observed under an optical microscope at forty times or more, the bubbles in the glaze glitter like the twinkling of morning stars.

6.3.5 Form. The form is spare and well judged, dignified and generous, with flowing lines.

6.3.6 Other requirements for everyday porcelain products. Water absorption shall not exceed 5.0 %. Thermal stability: after one heat exchange from 180 degrees Celsius into water at 20 degrees Celsius, the body shall not crack. Lead and cadmium release shall follow GB/T 10813.1.

6.3.7 Grading. Products are graded according to the range of defects laid down in Table 3, which lists eighteen appearance defects with the physical quantity measured, the unit of measurement and the size class concerned. For deformation of vessels of every size class, the limits are: not more than 2 % of the mouth diameter for treasure grade, not more than 3 % for fine grade and not more than 4 % for qualified product; for sculptures, deformation that affects the artistic effect is not permitted at any grade. For the remaining defects, which include lack of glaze, dropped slag, spots, glaze bubbles, melt holes, pinholes, smoke staining, sticking scars and sticking slag, chipping, body cracks, uneven glaze thickness, slip and glaze streaks, lack of clay, fire spikes, mould marks, clay slag lumps and body bubbles, and overfiring or underfiring, the table sets out for each grade and each size class whether the defect is not permitted at all, not permitted on the visible face while a stated area is tolerated on the non-visible face, or not permitted where it affects the artistic effect.

6.3.7 a) Treasure grade: the form is beautiful, the workmanship fine, the glaze colour pure and the glaze surface as moist as jade; the piece is difficult to make, of high artistic standing, fully expresses the character of Ru ware and is worth collecting; no piece shall carry more than three kinds of defect.

6.3.7 b) Fine grade: the form is beautiful, the workmanship fine, the glaze colour pure and the glaze surface smooth and lustrous like jade; the piece is of fairly high artistic standing and expresses the character of Ru ware; no piece shall carry more than four kinds of defect.

6.3.7 c) Qualified product: the form is dignified and generous and the workmanship fine; the piece expresses the basic artistic character of Ru ware and has a certain decorative value; no piece shall carry more than five kinds of defect.

6.3.7 d) For treasure grade, fine grade and qualified product alike, the defects shall not be concentrated in one place.

Note to Table 3: defects not covered by this standard may be treated according to their shape as similar defects.

7 Inspection methods

7.1 Colour, glaze quality, crackle and form: inspected by visual examination.

7.2 View within the glaze: part of the glaze surface of the product is placed under a microscope at forty times or more and observed.

7.3 Other requirements for everyday porcelain products: water absorption according to GB/T 3299, thermal stability according to GB/T 3298, lead and cadmium release according to GB/T 3534.

7.4 Grading: deformation by the method laid down in GB/T 3300, the size of defects by the method laid down in GB/T 3301.

8 Inspection rules

Product inspection is divided into delivery inspection and type inspection. Inspection uses the number of nonconforming items per hundred units of product (the counting method). Every batch shall be inspected piece by piece by the inspection department of the manufacturer and found conforming before it leaves the works, and shall be accompanied on delivery by a document certifying that the quality of the product conforms.

8.1.1 The items of the delivery inspection are those laid down in 6.3.1 to 6.3.5 and in 6.3.7 of this standard.

8.1.2 Delivery inspection is carried out according to GB/T 2828.1. For the inspection items 6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5 and 6.3.7 the nonconformity class is B, the acceptance quality limit is 4.0, the inspection level is general inspection level I and the sampling type is a normal inspection single sampling plan.

8.1.3 Formation of the product batch: the products submitted may be formed into a batch by single piece, by set, by grade, by form or by model.

8.1.4.1 Time of drawing the sample: for large runs of small and medium products the sample is drawn after the boxes have been closed; for large and extra large products and for small runs it is drawn before the boxes are closed.

8.1.4.2 The sample is drawn at random. For single-piece products the sample size is drawn as laid down in Table 4; for sets, the set is reduced to single pieces and the sample size is then drawn as laid down in Table 4.