

ICS 87.080

QB

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

QB/T 2625-2011

**Gel ink ball pens and refills [including 2015 Modification 1]
(English Translation)**

Issued on: May 18, 2011

Implemented on: August 1, 2011

Issued by: Ministry of Industry and Information Technology

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27668 -2.2009. Appendix C provides the corresponding technical differences

and their causes.

This standard has also made the following editorial changes.

- INTEGRATE ISO 27668-1 ~ ISO 27668-2.2009 into a standard; CHANGE the standard name into "Gel ink ball pens and refills";
- ADD Appendix B (informative) "Structural changes of this standard as compared with ISO 27668-1 to ISO 27668-2.2009";
- ADD Appendix C (informative) "Technical differences between this standard and ISO 27668-1 to ISO 27668-2.2009 and their causes".

This standard was proposed by the China Light Industry Federation.

This standard shall be under the jurisdiction of the National Pen Standardization Technical Committee (SAC/TC 378).

The responsible drafting organization of this standard. Beifa Group Co., Ltd.

The participating drafting organizations of this standard. Shanghai Pen Industry Research Institute, Qingdao Changlong Stationery Co., Ltd.,

Chengguang Holding (Group) Co., Ltd., Guangdong Jinwannian Stationery Co., Ltd., Wenzhou Tianjiao Pen Industry Co., Ltd., Yiwu Meineng Pen Industry Co., Ltd., Kunshan Lemei Stationery Co., Ltd., Ningbo Wenkui Holding Group Co., Ltd., Shanghai Wenzheng Pen Industry Co., Ltd., Wenzhou Aihao Pen Industry Co., Ltd., Shanghai Heye Stationery Co., Ltd., Ningbo Stationery Industry Association.

1 Scope

This standard specifies the terms and definitions, classification, requirements, test methods, inspection rules and marking, packaging, transportation and storage of gel ink ball pens and refills.

This standard is applicable to the gel ink ball pens and refills (refillable and non-refillable) and refills (hereinafter referred to as "gel ink ball pen" and "refills") for general writing and documentary writing.

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) are applicable to this Standard.

GB/T 191 Packaging - Pictorial marking for handling of goods (GB/T 191-2008, ISO 780.1997, MOD)

GB/T 2828.1 Sampling procedures for inspection by attributes - Part 1. Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection (GB/T 2828.1-2003, ISO 2859-1.1999, IDT)

GB/T 6388 Transport packaging collection and delivery marking

GB/T 12654- 2008 Writing paper

GB 21027 - 2007 Request in common use of security for students articles

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Gel ink ball pen

- b) Writing angle. $65^{\circ} \pm 5^{\circ}$;
- c) Writing speed. (4.5 ± 0.5) m/min;
- d) Writing pattern. continuous spiral line (100 mm circumference) with a pitch between 2mm and 5 mm;
- e) Backing plate. polished stainless steel plate.

6.2 Writing paper

USE the writing paper of quantitative specification 70 g/m² in accordance with GB/T 12654-2008.

6.3 Samples

Except for the shelf life test, USE the gel ink pen and refills which are not used within six months from the date of production as the test pen.

6.4 Environmental conditions

In the absence of special provisions, the test shall be carried out under the following environmental conditions.

- a) Relative humidity. 50% ~ 80%;
- b) Ambient temperature. 15 °C ~ 25 °C.

7.1.1 Test apparatus

60g special weight.

7.1.2.2 HANG the 60g special weight at the lower end of the pen; MAKE the

test pen form an tilting angle of $50^{\circ} \sim 70^{\circ}$ to the writing paper surface; DRAW a straight line at the writing speed of 10mm/s ~ 15mm/s; AND the inking shall be normal within 100mm.

7.2 Writing performance test

PLACE the sample paper in the copying equipment and TURN on the copying equipment.

7.6.1.1 Distilled water.

7.6.1.2 200mL beaker.

7.6.2 Methods and procedures

PLACE the sample paper under test conditions for 2 hours; then PLACE it in the beaker to make it immerse into the distilled water, 1 h for "general writing" and 24h for "documentary writing"; TAKE it out and LET it dry naturally.

7.7.1 Test equipment

UV light box (light box inner diameter of 220mm ~ 230mm, UV lamp. power 30W, wavelength 2.537 x 10²nm, lamp tube length 900mm).

7.7.2 Methods and procedures

PLACE the sample paper at a location 100mm away from the UV lamp tube; MAKE it be radiated for 72h; TAKE it out.

7.8 Cap-off time test

REMOVE the cap from the unused test gel ink pen; after establishing normal ink flow, horizontally PLACE it under the test conditions for 24h; DRAW a straight line with hand.

7.9.2 Methods and pr...

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