

# Working to Chinese footwear standards

LIAM DONNELLY and ADAM ZHANG share some important information on government standards that affect the makers of footwear to be offered for sale in China.

The quality of all footwear sold in China – whether imported or locally-produced – is controlled by more than 50 quality standards, ranging from the mandatory ‘Guo Biao’ (GB) national standards, through to voluntary industry standards, local standards and ‘enterprise’ standards.

The structure of the Chinese standards system and the bodies controlling it was described in the article ‘Testing shanks for the Chinese market’, published in the January 2019 issue of *SATRA Bulletin*.

Listed below are 14 of the most common standards regulating general footwear sold in China. These standards

specify the performance levels to be met using a variety of different tests, and can be broken down into the following categories.

## Children’s footwear

**GB 25036-2010** – ‘Children’s canvas/rubber footwear’ identifies 14 test methods, many of which are identical to tests highlighted in the ISO 8124-1:2000 – ‘Safety of toys’ standard.

**GB 30585-2014** – ‘Safety technical specification for children’s shoes’ calls up six test methods, two of which are similar to tests detailed in ISO 8124-1:2000.

It is important to note that ISO 8124:2018 was published last year

with some major changes to the earlier version.

**QB/T 2880 2016** – ‘Children’s leather shoes’ defines 12 test methods, two of which are identical to ISO 17708:2003 – ‘Upper/sole adhesion test’ and ISO 17700:2004 – ‘Colour fastness to rubbing for uppers, linings and insoles’.

**QB/T 4331-2012** – ‘Children’s athletic shoes’ has some overlap with the ISO 22777:2004 – ‘Peel strength of touch and close fasteners’, and ISO 22776:2004 – ‘Shear strength of touch and close fasteners’ test methods.

**QB/T 4546-2013** – ‘Children’s leather sandals’ sets 17 tests, two of which are identical to the test methods in ISO 8124-1:2000 – ‘Safety of toys’, with one being identical to the ISO test for colour fastness in ISO 17700:2004. The test for leather measurement is a slightly modified version of ISO 2589:2002.

## Sports shoes for adults

Two of the 14 standards relate to sports shoes, as outlined below.

**GB/T 15107-2013** – ‘Athletic shoes (not for competitive sport)’ features eight test methods, two of which are identical to the methods in ISO 17708:2003 and ISO 17700:2004.

**HG/T 2017-2011** – ‘Sports shoes’ lists eight test methods. Four of these share the ISO test methods for tensile strength of rubber, bond strength of fabric with rubber, density and hardness determination of rubber, with one being a modified version of BS test method for determination of abrasion resistance.

## General footwear

**QB/T 1002-2015** – ‘Leather shoes’ outlines 15 test methods, two of which are identical to tests in ISO 17708:2003 and ISO 17700:2004.



There are a number of tests for children’s shoes to be sold in China

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**QB/T 2955-2017** – ‘Casual shoes’ includes 12 methods, of which tests for colour fastness and the bond between outsole and midsole are identical to ISO 17700:2004 and ISO 36:2005.

**HG/T 2018-2014** – ‘Casual rubber shoes’ specifies seven tests. Three of these are identical to methods in ISO 37:2005, ISO 7619-1:2004 and ISO 36:2005, one is a modified version of BS 903 part A9:1988 and one is a modified version of the ASTM D1148-1995 test for rubber deterioration.

**GB 25038-2010** – ‘Rubber shoes – healthy and safe specification’ identifies test methods which are identical to those in ISO 17700:2004.

**GB/T 22756-2017** – ‘Leather sandals’ features 14 tests, two of which are identical to ISO 17708:2003 and ISO 17700:2004.

**Other tests**

**QB/T 4552-2013** – ‘Slippers’ has no equivalent Western test methods.

**GB/T 28011-2011** – ‘Shanks for footwear’ was highlighted in the January 2019 issue of *SATRA Bulletin*.

Many of the Chinese standards relating to different product categories follow the same basic format and refer to the same test methods. Therefore, this article will consider in more detail just one of these standards, which covers men’s and women’s shoes. QB/T 1002-2015 – ‘Leather shoes’ applies to shoes or boots made from natural or artificial leather, while excluding products that are designed to provide foot or leg protection, and shoes made for infants or children.

**QB/T 1002-2015**

This standard details the terms and definitions, classification, requirements, test methods, inspection rules, labelling, packaging, transportation and storage of leather shoes as defined above.

Throughout the standard, different requirements are applied to the ‘high quality’ and ‘qualified’ product categories, and all footwear must be labelled to say to which category it belongs.

Clause 5.3 includes the visual standard to be achieved for ten different features of the shoe – from materials used to seam allowances and length variations. Different standards are applied to ‘high quality’ products and



*Sports shoes for adults must meet specific standards*

‘qualified’ products, and the ten features are separated into ‘primary defects’ and ‘secondary defects’. The standard sets

out the visual requirements of the following aspects of the footwear: ‘overall appearance’, ‘vamp’, ‘stiffener



*The GB/T 28011-2011 test assesses shanks for footwear*



*Chinese standards outline requirements for a variety of general footwear types*

and toe-puff' (counter and box toe), 'heel', 'featherline', 'collar', 'seams', 'outsole', 'trims', and 'size', with the size section focusing on allowable differences between measurements of left and right shoes.

A separate clause (5.4) outlines the allowable levels of smell. The strength of smell is rated by a panel of three people on a scale of '1' to '5'. The odour level should be not greater than '3', which is classed as 'an obvious smell', but not 'offensive'. The criteria for the selection of the judging panel are also listed. The panel should have a minimum of three trained people with no smell defects who should be non-smokers, should be sober and should not use strong smelling cosmetics.

Clause 5.5 specifies the standards for the physical and mechanical properties, and Clause 6 provides the relevant test method.

Required values are identified, with different levels in many cases for 'high quality' products and 'qualified' products.

The standard lists test methods and required values for upper/sole peel strength, bond strength between outsole and midsole, upper pull-out strength,

whole shoe flexing, abrasion resistance of outsole, abrasion resistance of top-piece, heel attachment strength, hardness of the heel, colour fastness to rubbing (with a lower level highlighted for suede leather), longitudinal stiffness, hardness and length of shanks, flexing index for insole boards, upper material flexing at low temperature, and innocuousness testing for aromatic amine dyes and for hydrolysed formaldehyde.

Clause 7 gives the inspection rules and refers to standard QB/T 1187 – 2010 – 'Footwear – principles of inspection and marking, package, transportation and storage'. This standard details the rules for determining whether a footwear product can be categorised and labelled as a 'qualified' or 'high quality' product. Such a decision is made by the factory based on the results of a 'type inspection'.

A 'type inspection' is classed as full testing to the relevant standard, and is required under the following conditions:

- the product is new or has been transferred from another factory
- there have been changes to the construction, material or manufacturing process
- when in continuous production, a

type inspection must be carried out every six months

- production restarts after a stop of three months
- if there are big differences between the type inspection and the last final inspection in the factory
- if required by the National Quality Supervision Bureau.

The final factory inspection is carried out as the goods leave the factory. This is broken down into a visual inspection of all shoes following the requirements of Clause 5.3, and a testing programme on a random selection of at least three pairs from the batch on all the properties defined in clauses 5.4 and 5.5. The inspection procedures allow for the flexing of insole boards and the low-temperature flexing of upper materials, which are to be performed only if relevant.

For the visual inspection, the batch will be classed as 'failed' if one or more primary defects are found, or if two or more secondary defects are found.

If the shoes tested from the random selection all reach the standard required for 'qualified', the batch is labelled with this word. If one or more of the criteria is not met, the sample quantity is doubled and all tests are repeated. If any one property fails to meet the 'qualified' standard, the whole batch will be marked as 'unqualified'. Unqualified products may not be offered for sale in China.

Based on the results of the visual inspection and the random sample testing, the factory decides whether the product matches the results from the type inspection examination. If it does, a certificate can be issued to state whether the product is 'qualified' or meets the criteria for a 'high quality' product. This rating will be included on the labelling information.

Finally, clause 8 also refers to QB/T 1187-2010 for the rules regarding marking, packaging, transportation and storage. It basically provides common sense advice for ensuring the product arrives to the retail market, protected from the elements, in clean, dry, undamaged packaging with correct markings.

### Shoe marking

The requirement for marking on the shoe is given in clause 5.2 and refers to the



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*There is no quality assessment or check of quality documents when most types of footwear are imported into China*

QB/T 2673 standard. The 2013 edition of this standard states that the shoe itself should carry the brand logo or company name, as well as the shoe size and the product reference number. The product packaging (including the hangtag) should also include these details, in addition to information about the materials and colours, company contact details, place of origin, production date, quality grade, applicable standards and aftersales terms. The outer carton should carry the company name, contact details and logo, as well as the name of the product.

The product name must include both the gender and type of shoe (for example, 'men's casual shoe'). The size can be expressed as the foot length in millimetres. For the width, a millimetre measurement or a number depicting the foot type may be used. Any text used on the labels must be in Chinese. If other languages are also used, the font height must be less than the height of the Chinese lettering.

Annex 'A' of QB/T 1002-2015 covers the defects that would be considered to be quality problems after normal wear. No clear definition of 'normal wear' is given, other than that the aftersales service period should be in accordance with the provisions of the state or local laws and regulations. Annex A lists 11 defects, ranging from upper material cracking or delamination, heel attachment, colour transfer to hose and protruding nail tips inside the shoes to problems affecting the aesthetics. It

refers to GB/T 3903.5-2011 as a method for checking the quality of worn shoes and recommends that the claim should be handled according to relevant national or local laws and regulations.

#### Import process

For most types of footwear, there is no quality check or check of quality documents as part of the import process. Any commodities that do require quality checks at import are specified in the 'Catalogue of inbound and outbound commodities subject to inspection and quarantine', published by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China (AQSIQ) in 2018. This catalogue identifies some categories of children's footwear where an import inspection is required. Children's footwear products within the scope of the custom's inspection must meet the requirement of GB 30585-2014 – 'Safety technical specifications for children's shoes', which is a mandatory standard for children's footwear. However, the retailer of the footwear is responsible for checking that both a 'factory inspection certificate' and a test report from a CMA/CNAS-accredited laboratory exist before the footwear can be placed on sale.

In summary, footwear sold in China is covered by an extensive range of mandatory and voluntary standards, which at times can be confusing. For most non-mandatory standards, the

selection of the standard and the assessment of the product will be decided by the manufacturer, and this information must be included on the product labelling. Although quality inspections are not generally required by customs on import, random inspections may be carried out in the market place by the Chinese authorities responsible for quality supervision. Products that fail to comply can be confiscated and financial penalties can be applied, ranging from fines to confiscation of illegal income. In serious cases, the business license can be revoked and criminal prosecution will be considered. Businesses wishing to sell footwear in the Chinese market should take expert advice on the applicable rules and regulations, and be fully aware of the risks of failing to comply.

#### How can we help?

As highlighted in this article, there are many Chinese government standards – mandatory, national, voluntary, local and enterprise – that can apply to the production of footwear. Please email SATRA's China office for further information on the requirements contained within these standards.

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