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

GB 28477-2012

Safety technical requirements for children umbrella

儿童伞安全技术要求

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Foreword

Chapter 5 of this standard is mandatory and the rest is recommended. This standard was drafted in accordance with the rules given in GB/T 1.1-2009 "Directives for standardization - Part 1. Structure and drafting of standards". This standard was proposed by the China Light Industry Federation. This standard shall be under the jurisdiction of the National Daily Commodity Standardization Center. The drafting organizations of this standard. Hangzhou Paradise Umbrella Co., Ltd., Taiyangcheng (Xiamen) Umbrella Co., Ltd., Fulong (Fujian) Umbrella Co., Ltd., Quanzhou Hongli Umbrella Co., Ltd., Xiamen Tongan Hexin Hutu Technology Co., Ltd., Zhejiang Youyifeinuo Umbrella Co., Ltd., Shaoxing Jinding Umbrella Co., Ltd., Zhejiang Hongye Umbrella Co., Ltd., Xiamen Hongda Umbrella Industrial Co., Ltd., Wenzhou Conch Group Co., Ltd., Hongtai (Fujian) Rain Gear Co., Ltd., Fujian Yusimeng Umbrella Industrial Co., Ltd., Jinjiang Jialemei Umbrella Co., Ltd., Jinjiang Hongsheng Rain Gear Co., Ltd., Tianwaitian umbrella Industry Co., Ltd., Rixin Textile Co., Ltd., Beijing Light Industry Product Quality Supervision and Inspection Station. The main drafters of this standard. Li Chuanhe, Chen Xiaolei, Cai Rongtuan, Wang Wenpeng, Lv Yayan, Lu Jingxiang, Lv Miaofen, Lv Xinmiao, Yu Chengrong, Cai Jinbang, Chen Haihe, Cai Rongyong, Li Jishan, Xiao Qingjiang, Wang Qinghong, Xu Hainan, Lv Shiliang, Wei Xiaoying, Wang Xinyao, Yuan Jie. Safety technical requirements for children umbrella

1 Scope

GB 28477-2012 is the Chinese national standard on safety technical requirements for children umbrella, in the field of domestic and commercial equipment, entertainment, sport. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 29 June 2012 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 May 2013. Classification: ICS 97.180, CCS Y89. 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 the terms and definitions, product classification, requirements, test methods, inspection rules and markings, packaging, transportation, and storage of children umbrella, This standard applies to umbrellas for children aged 3 years and above.

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 2828.1-2003 Sampling procedures for inspection by attributes - Part 1. Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection

GB/T 2829-2002 Sampling procedures and tables for periodic inspection by attributes (apply to inspection of process stability)

GB/T 2912.1 Textiles - Determination of formaldehyde - Part 1. Free and hydrolyzed formaldehyde (water extraction method)

GB 6675-2003 National safety technical code for toys

GB/T 17592 Textiles - Determination of banned azo colorants

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Child umbrella It refers to the umbrella which is used for children for which the distance from the center of the umbrella hat or umbrella top center to the umbrella bead (groove) center is 50 cm below (including 50 cm). The umbrella buckle shall, after being subjected to the 70 N tension test, not fall off.

5.9 Trim After the trims have been tested by at 70 N tensile test, it shall provide warning if it

falls off.

6.1 Safety requirements for use

6.1.1 CONDUCT visual inspection and hand touching inspection.

6.1.2 CONDUCT visual inspection to see if there is squeezing point in the opening and closing process of umbrella.

6.1.3 After continuously open and close the umbrella for 400 times, CHECK whether the components fall off.

6.1.4 USE the dynamometer to measure the automatically opened umbrella button force.

6.1.5 HOLD the umbrella rod to rotate it back and forth for 3 times, and then OPEN and CLOSE the umbrella for 5 times.

6.2.1 USE a vernier caliper of precision

0.02 mm to directly measure the maximum distance from the top to the umbrella surface section.

6.2.2 Visually INSPECT the umbrella hat or umbrella top (cover) shape; and USE a vernier caliper to measure the top diameter.

6.3 Bead tail

6.3.1 Visually INSPECT the head tail end surface, and USE a vernier caliper of precision 0.02 mm to directly measure the bead tail diameter.

6.3.2 USE a fixture to fix one end of the closed umbrella; USE the dynamometer to tension the bead tail along the umbrella rib axis, until the bead tail is fully separated from the umbrella rib; RECORD the displayed value. CONDUCT tests respectively for 3 times, and RECORD the minimum value.

6.3.3 From the umbrella surface, CUT a sample of length 120 mm and width 50 mm; respectively FIX the bead tail and umbrella surface onto the upper fixture

8.1.2 The product packaging box shall have the following Chinese information A) Product name; B) Manufacturer name and address; C) Product model; D) Specification, size and quantity; E) Production date.

8.2 Packaging Packaging shall be solid, without damage, anti-extrusion, and moisture-proof.

8.3 transport Product shall be gently loaded or unloaded during handling, avoiding heavy load.