



NUMBER : TSNH00186157

Applicant : ROYALBABY CYCLE BEIJING CO., LTD.  
RM718, 8 SI JI QING RD., HAIDIAN DIST., BEIJING, CHINA  
Attn :Junnis Cai

Date : Mar 16, 2016

Sample Description:

Four (4) submitted samples said to be

Item Name : Bicycle.  
Item No. : RB20G-4.  
Manufacturer : ROYALBABY CYCLE BEIJING CO., LTD.  
Country of Origin : China.  
Goods Exported To : EU.



Speed :Single-speed.  
Brake :Side pull caliper brake in front & band-brake in rear.  
Fork :--.  
Frame :--.  
Wheel :20" wheels.  
Others : Quick-release device for seat post & warning device & Mudguards.

Tests Conducted:

As requested by the applicant, for details refer to attached page(s)

To be continued

Authorized By :  
For Intertek Testing Services  
(Tianjin) Ltd.

David Zhang  
Manager



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Conclusion:

<u>Tested sample</u>	<u>Standard</u>	<u>Result</u>
Submitted bicycle	ISO 4210-2:2014 Cycles – Safety requirements for bicycles Part 2: Requirements for city and trekking, young adult, mountain and racing bicycles	Pass #1, #2, #3 & #4

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Remark:

- #1 = The approval of compliance with ISO 5775 part 1 & part 2 is manufacturer's responsibility.
- #2 = Bicycles shall be equipped with lighting systems and reflectors in conformity with the national regulations in the country in which the bicycle is marketed.
- #3 = The requirement as per clause 4.20.4 reflectors, the retro-reflective devices shall comply with the requirement of ISO 6742-2 was not evaluated in this report. However, the applicant has submitted test data and "declaration of conformity" substantiating compliance of reflectors with ISO 6742-2.
- #4 = Compliance with warning device's provisions in force in the country in which the product is marketed is manufacturer's responsibility.

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## Safety Requirements for Bicycles

As per ISO 4210-2:2014 Cycles – Safety requirements for bicycles Part 2: Requirements for city and trekking, young adult, mountain and racing bicycles.

Its normatively referenced parts, under the general title Cycle – Safety requirements for bicycles, includes,

- Part 1: Terms and definitions
- Part 3: Common test methods
- Part 4: Braking test methods
- Part 5: Steering test methods
- Part 6: Frame and fork test methods
- Part 7: Wheels and rim test methods
- Part 8: Pedals and drive system test methods
- Part 9: Saddles and seat-post test methods

Bicycle type: Young adult bicycle

Executive summary:

Clause	Test item	Result
1	Scope	
2	Normative references	
3	Terms and definitions	
4	Requirement	
4.1	Toxicity	P (See test data #1)
4.2	Sharp edges	P
4.3	Security and strength of safety-related fasteners	
4.3.1	Security of screws	P
4.3.2	Minimum failure torque	P
4.3.3	Folding bicycles	NA
4.4	Crack detection methods	
4.5	Protrusions	P
4.6	Brakes	
4.6.1	Braking systems	P
4.6.2	Hand-operated brakes	
4.6.2.1	Brake lever position	P
4.6.2.2	Brake lever grip dimensions	P
4.6.3	Attachment of brake assembly and cable requirements	P
4.6.4	Brake-block and brake-pad assemblies — Security test	P
4.6.5	Brake adjustment	P
4.6.6	Hand-operated braking-system — Strength test	P
4.6.7	Back-pedal braking system — Strength test	NA
4.6.8	Braking performance	P
4.6.9	Brakes — Heat-resistance test	NA
4.7	Steering	
4.7.1	Handlebar — Dimensions	P

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Clause	Test item	Result
4.7.2	Handlebar grips and plugs	P
4.7.3	Handlebar stem — Insertion-depth mark or positive stop	P
4.7.4	Handlebar stem to fork steerer — Clamping requirements	P
4.7.5	Steering stability	P
4.7.6	Steering assembly — Static strength and security tests	
4.7.6.1	Handlebar stem — Lateral bending test	P
4.7.6.2	Handlebar and stem assembly — Lateral bending test	P
4.7.6.3	Handlebar-stem — Forward bending test	P
4.7.6.4	Handlebar to handlebar stem — Torsional security test	P
4.7.6.5	Handlebar-stem to fork steerer — Torsional security test	P
4.7.6.6	Bar end to handlebar — Torsional security test	NA
4.7.6.7	Aerodynamic extensions to handlebar — Torsional security test	NA
4.7.7	Handlebar and stem assembly — fatigue test	P
4.8	Frames	
4.8.1	Suspension-frames — Special requirements	NA
4.8.2	Frame — Impact test (falling mass)	P
4.8.3	Frame and front-fork assembly - impact test (falling frame)	P
4.8.4	Frame - fatigue test with pedaling forces	P
4.8.5	Frame - fatigue test with horizontal force	P
4.8.6	Frame - fatigue test with a vertical force	P
4.9	Front fork	
4.9.1	General	
4.9.2	Means of location of the axle and wheel retention	P
4.9.3	Suspension-forks — Special requirements	NA
4.9.4	Front fork — Static bending test	P
4.9.5	Front fork — Rearward impact test	P
4.9.6	Front fork — Bending fatigue test plus rearward impact test	P
4.9.7	Forks intended for use with hub- or disc-brakes	NA
4.9.8	Tensile test for a non-welded fork	NA
4.10	Wheels and wheel/tyre assembly	
4.10.1	Wheel/tyre assembly — Concentricity tolerance and lateral tolerance	P
4.10.2	Wheel/tyre assembly — Clearance	P
4.10.3	Wheel/tyre assembly — Static strength test	P
4.10.4	Wheels — Wheel retention	P
4.10.5	Wheels — Quick-release devices — Operating features	NA
4.11	Rims, tyres and tubes	
4.11.1	General	
4.11.2	Tyre inflation pressure	P
4.11.3	Tyre and rim compatibility: comply with ISO 5775-1 & ISO 5775-2	#1
	Tyre and rim compatibility: 110% inflation for the tyre	P
4.11.4	Tubular tyres and rims	P
4.11.5	Rim-wear	NA
4.11.6	Greenhouse effect test for composite wheels	NA
4.12	Front mudguards	P
4.13	Pedals and pedal/crank drive system	



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Clause	Test item	Result
4.13.1	Pedal tread	P
4.13.2	Pedal clearance	P
4.13.3	Pedal — Static strength test	P
4.13.4	Pedal — Impact test	P
4.13.5	Pedal — Dynamic durability test	P
4.13.6	Drive-system — Static strength test	P
4.13.7	Crank assembly — Fatigue test	P
4.14	Drive-chain and drive belt	
4.14.1	Drive-chain	P
4.14.2	Drive belt	NA
4.15	Chain-wheel and belt-drive protective device	P
4.16	Saddles and seat-post	
4.16.1	Limiting dimensions	P
4.16.2	Seat-pillar — Insertion-depth mark or positive stop	P
4.16.3	Saddle/seat-post — Security test	P
4.16.4	Saddle — static strength test	P
4.16.5	Saddle and seat-post clamp — Fatigue test	P
4.16.6	Seat-post — Fatigue test	P
4.17	Spoke protector	NA
4.18	Luggage carriers	P
4.19	Road test of a fully assembled bicycle	P
4.20	Lighting systems and reflectors	
4.20.1	General	#2
4.20.2	Wiring harness	NA
4.20.3	Lighting systems	NA
4.20.4	Reflectors	P #3
4.21	Warning device	#4
5	Manufacturer's instructions	P
6	Marking	P

Abbreviation: P = Pass NA = Not Applicable

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To be continued



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Test Data

#1. 19 Toxic Element Migration Test

(A) Test Result

As per EN71-3:2013+A1:2014 and followed by Inductively Coupled Plasma Atomic Emission Spectrometry, Inductively Coupled Argon Mass Spectrometry, liquid Chromatography- Inductively Coupled Plasma-Mass Spectrometry, and Gas Chromatographic - Mass Spectrometry

Category (III): Scraped-off toy material

Element	Result (mg/kg)				Limit (mg/kg)
	(1)	(2)	(3)	(4)	
Aluminium (Al)	<300	<300	<300	5246	70000
Antimony (Sb)	<10	<10	<10	<10	560
Arsenic (As)	<10	<10	<10	<10	47
Barium (Ba)	<10	436	46	<10	18750
Boron (B)	<50	<50	<50	<50	15000
Cadmium (Cd)	<5	<5	<5	<5	17
Chromium (III) (Cr III)	<10	<10	<10	<10	460
Chromium (VI) (Cr VI)	<0.2#	<0.2#	<0.2#	<0.2#	0.2
Cobalt (Co)	<10	<10	<10	<10	130
Copper (Cu)	<10	<10	<10	<10	7700
Lead (Pb)	<10	<10	<10	<10	160
Manganese (Mn)	<10	<10	<10	<10	15000
Mercury (Hg)	<10	<10	<10	<10	94
Nickel (Ni)	<10	<10	<10	<10	930
Selenium (Se)	<10	<10	<10	<10	460
Strontium (Sr)	<100	<100	<100	<100	56000
Tin (Sn)	<10	<10	<10	<10	180000
Organic tin	<3	<3	<3	<3	12
Zinc (Zn)	<100	<100	<100	<100	46000

Remark : mg/kg = milligram per kilogram

- Organic tin test result was expressed as tributyl tin.

- Unless specified, determination of Chromium (III), Chromium (VI) and Organic tin was based on elemental analysis.

The above reference limit was quoted according to Annex II Part III Items 13 of the European Council Directive 2009/48/EC, amendment 2012/7/EU and amendment 681/2013/EU for 19 toxic elements in toys.

# = Confirmation of Chromium (VI) test was performed on the tested component.

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Tested Components

- (1) Pink coating on metal(handlebar,front fork,rin of wheel,mudguards)
- (2) White coating on metal(frame,chainguard,spoke)
- (3) White/pink/purple synthetic leather(saddle cover)
- (4) Pink plastic(grip)

(B) Categories of various toy materials

Category I: Dry, brittle, powder like or pliable

Solid toy material from which powder-like material is released during playing and semi-solid materials that may also leave residues on the hands during play. The material can be ingested. Contamination of the hands with the material may contribute to the oral exposure of the material. (e.g. the cores of colouring pencils, chalk, crayons, modelling clays and plaster).

Category II: Liquid or sticky

Fluid or viscous toy material, which can be ingested or to which dermal exposure may occur during playing. (e.g. liquid paints, finger paints, liquid ink in pens, glue sticks, slimes, bubble solution).

Category III : Scraped-off

Solid toy material with or without a coating, which can be ingested as a result of biting, tooth scraping, sucking or licking. (e.g. coatings, lacquers, plastics, paper, textiles, glass, ceramic, metallic, wooden, bone , leather and other materials).

Date sample received : Mar 03, 2016

Testing period : Mar 03, 2016 to Mar 16, 2016

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End of report

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