



Hong Kong Standards and Testing Centre

10 Dai Wang Street, Taipo Industrial Estate, NT, Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2663 9612 Email: tcd@hkstc.com

Abuse Test Parameters for Physical and Mechanical Test of Major Toy Safety Standards

Tests	Age (Months)	Australia/New Zealand AS/NZS ISO8124-1:2002	Canada CHP (Toys) Regulation	Europe EN71 Part 1:2005	Japan Toy Standard 2002	USA CPSC / ASTM F963-03
Drop	0 to ≤ 18 > 18 to ≤ 36 > 36 to ≤ 168	138 ± 5 cm, 10 drops 93 ± 5 cm, 4 drops 93 ± 5 cm 4 drops (≥ 36 to ≤ 96 months)	4.5 ft (137 cm) 4 drops 4.5 ft (137 cm) 4 drops (< 3 yrs) 3 ft (91 cm) 4 drops (≥ 3 yrs)	850 ± 50 mm, 5 drops (≤ 168 months)	130 ± 5 cm, 10 drops (< 18 months)	4.5 ft ± 0.5 in (137 cm) 10 drops 3 ft ± 0.5 in (91 cm) 4 drops 3 ft ± 0.5 in (91 cm) 4 drops (> 36 to ≤ 96 months)
Compression	0 to ≤ 18 > 18 to ≤ 36 > 36 to ≤ 168	114N ± 2.0N 114N ± 2.0N 136N ± 2.0N (up to 96 months)	10 lbs (44.5 N)	For mask & helmets and toys < 36 months only 110 ± 5 N (24.7 lbs)	9 kg (< 18 months)	20 ± 0.5 lbs (89.0 ± 2 N) 25 ± 0.5 lbs (111.3 ± 2 N) 30 ± 0.5 lbs (133.5 ± 2 N) (> 36 to ≤ 96 months)
Torque	0 to ≤ 18 > 18 to ≤ 36 > 36 to ≤ 168	0.45N.m ± 0.02 N.m 0.45N.m ± 0.02 N.m 0.45N.m ± 0.02 N.m (up to 96 months)	For rattle: 1 Nm (10.2 kg-cm)	For mouth-actuated toys, masks & helmets, aquatic toys, and toys < 36 months. 0.34 Nm (3.5 kg-cm) or a rotation of 180°	2.3 kg-cm or a rotation of 180° (< 18 months)	2 ± 0.2 in-lbs (2.3 ± 0.2 kg-cm) 3 ± 0.2 in-lbs (3.5 ± 0.2 kg-cm) 4 ± 0.2 in-lbs (4.6 ± 0.2 kg-cm) (> 36 to ≤ 96 mths)
Tension	0 to ≤ 18 > 18 to ≤ 36 > 36 to ≤ 168	70N ± 2N 70N ± 2N 70N ± 2N (up to 96 months)	For eye/nose: 20 lbs (9 kg) For rattle: 50 N (11.23 lbs) Others: 10 lbs (44.5 N)	≤ 6 mm: 50 ± 2 N (11.2 lbs) > 6 mm: 90 ± 2 N (20.2 lbs) Seams: 70 ± 2 N Protective: 60 ± 2 N	≤ 6 mm: 50 N (5.1 kg) > 6 mm: 90 N (9.2 kg) Seams: 90 ± 2 N (< 18 months) Protective: 60N (≥ 3 yrs)	10 ± 0.5 lbs (44.5 ± 2 N) 15 ± 0.5 lbs (66.8 ± 2 N) 15 ± 0.5 lbs (66.8 ± 2 N) (> 36 to ≤ 96 months)
Flexure*	0 to ≤ 18 > 18 to ≤ 36 > 36 to ≤ 168	70N ± 2N 70N ± 2N 70N ± 2N (up to 96 months)	-	70 ± 2 N (15.7 lbs) (≤ 168 months)	4.5 kg (< 18 months) 6.8 kg (≥ 18 months)	10 ± 0.5 lbs (44.5 ± 2 N) 15 ± 0.5 lbs (66.8 ± 2 N) 15 ± 0.5 lbs (66.8 ± 2 N) (> 36 to ≤ 96 months)
Bite	0 to ≤ 18 > 18 to ≤ 36 > 36 to ≤ 168	-	-	-	11 kg (< 18 months) For toy with external dimension ≤ 32 mm and depth ≥ 6 mm.	For CPSC only 25 lbs (11.3 kgf) 50 lbs (22.6 kgf) 100 lbs (45.5 kgf) (> 36 to ≤ 96 months)

* 1 cycle per 2 sec, with a rest of 60 sec after each 10 cycles, for 30 cycles; For Japan: 1 cycle per sec, with a rest of 20 sec after each 10 cycles, for 30 cycles.



The Hong Kong Standards and Testing Centre Ltd

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Customer Service Centre: MTR Cheung Sha Wan Station Tel/Fax: (852) 2725 6717

SAMPLE DROP-OFF CENTRE: C/O FHKI, 4/F., HANKOW CENTRE, 5-15 HANKOW ROAD, TSIM SHA TSUI, KOWLOON, HONG KONG

Application Procedure for Product Testing

Introduction

Thank you for your interest in our service. The objective of this guide is to help you through the test requisition process. Let us know if you have any special requirements, we shall be delighted to tailor-make a procedure suitable for your situation.

Application Procedure

1. Applicant fills in the Test Requisition form (attached)
2. Applicant submits the needed test samples (Sample size refers to the attachment)
3. STC acknowledges receipt of samples and test requisition
4. STC provides quotation if required according to test request
5. Testing commences upon confirmation of quotation and receipt of payment
6. STC issues test report (preliminary results can be provided earlier)

Pick-Up & Delivery Service

Pick-up and delivery service is available to clients in local areas. Please contact our Customer Service Department. (Tel: 2666 1802 Fax: 2663 1205) or make use of our sample drop off centre at the following:

MTR Customer Service Centre

Cheung Sha Wan MTR Station, Kiosk 7 Tel/Fax : 2725 6717

Working hours:

Mon-Fri : 9:00 am - 1:30 pm, 2:30 pm - 6:00 p.m.

Sat : 9:00 am - 2:00 pm

Sample Drop-off Centre

c/o Federation of Hong Kong Industries
4/F Hankow Centre, 5-15 Hankow Road
Tsimshatsui, Kowloon, Hong Kong

Working hours:

Mon-Fri : 9:00 am - 12:45 pm, 1:45 pm - 5:20 pm

When Quotation is Required

You can request a quotation prior to testing. To do this simply state "Quotation required" in the Special Instructions section of the Test Requisition form. If you accept the quotation, please sign and fax the quotation back to us. Testing will commence upon receiving this confirmation.

Not Sure Which Standard(s) to Apply

Similarly, you can remark in the Test Requisition form e.g. "Please advise the suitability of the test standard" in the Special Instructions. Our staff will then contact you to better understand your needs.



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Companies Without Credit Account at STC

STC requires payment before the release of test results. We request the applicant to arrange payment when they confirm the quotation. Proof of payment i.e. fax copy of bank remittance, T/T is normally acceptable. Payments can be made to the following account:

The Bank of East Asia Ltd

Shop A & B, Milton Mansion,
96 Nathan Road,
Kowloon, Hong Kong.

*For payment in HKD (A/C#015-224-40-00316-8)

*For payment in USD (A/C#015-224-25-00039-4)

HSBC Bank

Tai Po Branch
54-62 Kwong Fuk Road,
Tai Po, N.T.

*For payment in HKD (A/C#004-037-089562-001)

*For payment in USD (A/C#004-037-4-800860)

Companies with Credit Account at STC

To facilitate subsequent test requisitions, you can apply for a credit account with us. Please complete our Credit Application Form (available upon request.)

Special Instructions

Please use the Special Instructions on the Test Requisition forms to make other requests e.g.

1. Quotation needed before commencement of testing
2. Request for advice on other applicable standards
3. Authorizing STC to release results to other parties beside the applicant (if the supplier is paying for testing, you may wish to make the authorization to release results to Applicant by default)
4. Requesting STC to send the original report directly to Applicant
5. Other requests

Other information

Please use block letters to fill in the Test Requisition forms. The information in the Test Requisition form will be shown on the final test report, for example, the sample description, item numbers... Please ensure all the information is correct to avoid amendment charges.

Contacts at STC

Please feel free to contact the following people for further assistance:

Toys and Children's Products Department (TCD):

Toys, Premiums, Gifts, Stationery, and Children's Products Testing

Enquiries	Contact	Telephone	Email
Enquiry & Quotation	Ms Horae Kwong	(852) 2666 1895	horae_kwong@hkstc.com
Technical Supports	Mr Benny Wong	(852) 2666 1830	benny_wong@hkstc.com
Customer Service	Mr Johnny Wong	(852) 2666 1889	johnny_wong@hkstc.com
General	Mr Keith Yung	(852) 2666 1896	keith_yung@hkstc.com



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International Children's Products Safety Standards

Products	Australia	Europe*	New Zealand	U.K.	U.S.A.
Baby Dummies	AS 2432 : 1991	EN 1400 : 2002	-	BS EN 1400 : 2002	ASTM F963-03
Baby Soother Holder	-	-	-	BS EN 12586 : 1999	-
Baby Walking Frames	-	EN 1273 : 2001	-	BS EN 1273 : 2001	ASTM F977-03
Bottle Teats	-	-	-	BS 7368 : 1990	-
Bunk Bed for Domestic Use	AS 4220 : 2003	EN 747-1 : 1993 EN 747-2 : 1993	NZS 4220 : 2003	BS EN 747-1 : 1993 BS EN 747-2 : 1993	ASTM F1427-01
Carry Cots and Similar Handled Products and Stands	-	EN 1466 : 1998	-	BS EN 1466 : 1998	ASTM F2050-01
Child Safety Barriers for Domestic Use	-	EN 1930 : 2000	-	BS EN 1930 : 2000	ASTM F1004-02a
Children's Cots for Domestic Use	AS 2172 : 1995	EN 716-1 : 1995 EN 716-2 : 1995	NZS 2172 : 1995	BS EN 716-1 : 1996 BS EN 716-2 : 1996	ASTM F1169-03 ASTM F1822-97
Children's High Chairs and Multipurpose High Chairs for Domestic Use	-	-	NZS 5799 : 1986	BS 5799 : 1986	ASTM F404-99a
Children's Safety Harnesses	AS 3747 : 1989	-	-	BS 6684 : 1989	-
Playpens for Domestic Use	-	EN 12227-1 : 1999 EN 12227-2 : 1999	-	BS EN 12227-1 : 1999 BS EN 12227-2 : 1999	ASTM F406-02
Wheeled Child Conveyances	AS 2088 : 2000	EN 1888 : 2003	NZS 2088 : 2000	BS 7409 : 1996	ASTM F833-05
Children's Paints	AS/NZS ISO 8124-3 : 2003	EN71 Part 3 : 1994	AS/NZS ISO 8124-3 : 2003	BS 5665 Part 3 : 1995	ASTM F963-03
Children's Sunglasses	AS 1067 : 2003	EN 1836 : 1997	AS 1067 : 2003	-	ANSI Z80.3-01

* Countries included Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, The Netherlands and United Kingdom



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Flammability Test Parameters for Major Toy Safety Standards

Sample	Australia/New Zealand AS/NZS ISO 8124 Part 2 : 2002	Canada C.R.C. c931	Europe EN71 Part 2 :2006	Japan Toy Safety Standard Part 2 : 2002	USA CPSC / ASTM F963-03
Finished Products	1) Filled soft toys and the greatest dimension > 150 mm 2) Beards, mouthstaches, wigs, masks and other with pile or hair; Disguise costumes; Product child can enter: Burn rate ≤ 30 mm/s	-	1) Beards, mouthstaches, wigs, etc. made from pile, hair or material with similar features ≥ 50 mm: duration of flame ≤ 2 s and max burnt length < 50% (of initial length ≥ 150 mm) or < 75% (of initial length < 150 mm); Beards, mouthstaches, wigs, etc. made from pile or hair < 50 mm: duration of flame ≤ 2 s and max burnt dimension ≤ 70 mm. 2) Full or partial moulded head masks: duration of flame ≤ 2 s and max burnt dimension ≤ 70 mm. 3) Flowing elements of toys to be worn on the head, hoods, head-dresses, etc. and fabric masks which partially or fully cover the head: burn rate ≤ 10 mm/s 4) Disguise costumes: burn rate ≤ 30 mm/s. “Warning! Keep away from fire.” required on both toy and packaging if burn rate is 10-30 mm/s. 5) Product child can enter: burn rate ≤ 30 mm/s. No flaming debris if rate > 20 mm/s; “Warning! Keep away from fire.” required on both toy and packaging if burn rate is 10-30 mm/s. 6) Filled soft toy: burn rate ≤ 30 mm/s. <u>Excluding:</u> soft toy with max dimension ≤ 150 mm		16 CFR 1500.44 (candle test) Burn rate ≤ 0.10 in/s, or Not ignited. <u>For ASTM F963-03:</u> If burn rate of 4 samples > 0.1 but < 0.15 in/s, accept; if 1/4 samples ≥ 0.15 in/s, retest; if more than 1 samples ≥ 0.15 in/s, fail. Major axis is placed horizontally. <u>Excluding:</u> strings, paper, packaging, ping-pong balls, and accessible components of major dimension ≤ 1 in



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Textile Materials	Pile fabric: no surface flash	Burning time: Flat or raised fibre textile material or natural fur: > 7 sec Yarn of spun staple of bulked continuous filament form: > 7 sec Hair, mane or similar hair or mane: not burn or self-extinguishing within 2 sec	Pile surface: no surface flash <u>Excluding:</u> material of dimension < 80 x 600 mm.		16 CFR 1610 Applies to fabric and removable unstuffed toy clothing. 1) Raised fibre: time of flame spread > 7 sec, or no base fusion 2) Non-raised fibre: time of flame spread ≥ 3.5 sec Excluding: hats, gloves, and footwear; interlining fabrics.
Other Requirements	General materials: - no celluloid - no cellulose nitrate except when used in varnish or paint - no flammable gas, liquid and solid	-	General materials: - no celluloid - no cellulose nitrate except when used in varnish or paint - no flammable gas, liquid and solid Conditioning: at least 7 hrs at 20 ± 5 ⁰ C and RH 65 ± 5% or 24 hrs at 20± 2 ⁰ C and RH 65 ± 5% for pile Test chamber: air movement < 0.2 m/s; 10-30 ⁰ C, RH 15-80% Toy position vertically.		Test condition: 20-30 ⁰ C, RH 20-70%



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