



Hong Kong Standards and Testing Centre

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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°C and RH 65 ± 5% or 24 hrs at 20± 2°C and RH 65 ± 5% for pile Test chamber: air movement < 0.2 m/s; 10-30°C, RH 15-80% Toy position vertically.		Test condition: 20-30°C, RH 20-70%