

## Flammability Requirements

Sample	Australia/New Zealand AS/NZS ISO 8124 Part 2: 2002	Canada C.R.C. c931	Europe EN71 Part 2: 2006	USA CPSC/ASTM F963-03
<b>Finished Products</b>	<p>1) Filled soft toys and the greatest dimension &gt; 150mm</p> <p>2) Beards, moustaches, wigs, masks and other with pile or hair; Disguise costumes; Product child can enter:</p> <p>Burn rate ≤ 30 mm/s</p>		<p>1) Beards, moustaches, wigs, etc. made from pile, hair or material with similar features ≥ 50 mm: duration of flame ≤ 2 s and max burnt length &lt; 50% (of initial length ≥ 150 mm) or &lt; 75% (of initial length &lt; 150 mm); Beards, moustaches, wigs, etc. made from pile or hair &lt; 50 mm: duration of flame ≤ 2s and max burnt dimension ≤ 70 mm.</p> <p>2) Full or partial moulded head masks: duration of flame ≤ 2 s and max burnt dimension ≤ 70 mm.</p> <p>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</p> <p>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.</p> <p>5) Product child can enter: burn rate ≤ 30 mm/s. No flaming debris if rate &gt; 20 mm/s; Warning! Keep away from fire. required on both toy and packaging if burn rate is 10-30 mm/s.</p> <p>6) Filled soft toy: burn rate ≤ 30 mm/s.</p> <p><u>Excluding:</u> soft toy with max dimension ≤ 150 mm</p>	<p>16 CFR 1500.44 (candle test) Burn rate ≤ 0.10 in/s, or Not ignited.</p> <p><u>For ASTM F963-03:</u> If burn rate of 4 samples &gt; 0.1 but &lt; 0.15 in/s, accept; if 1/4 samples ≥ 0.15 in/s, retest; if more than 1 samples ≥ 0.15 in/s, fail.</p> <p>Major axis is placed horizontally.</p> <p><u>Excluding:</u> strings, paper, packaging, ping-pong balls, and accessible components of major dimension ≤ 1 in</p>
<b>Textile Materials</b>	<p>Pile fabric: no surface flash</p>	<p>Burning time:</p> <p>Flat or raised fibre textile material or natural fur: &gt; 7 sec</p> <p>Yarn of spun staple of bulked continuous filament form: &gt; 7 sec</p> <p>Hair, mane or similar hair or mane: not burn or self-extinguishing within 2 sec</p>	<p>Pile surface: no surface flash</p> <p><u>Excluding:</u> material of dimension &lt; 80 x 600 mm</p>	<p>16 CFR 1610 Applies to fabric and removable unstuffed toy clothing.</p> <p>1) Raised fibre: time of flame spread &gt; 7 sec, or no base fusion</p> <p>2) Non-raised fibre: time or flame spread ≥ 3.5 sec</p> <p><u>Excluding:</u> hats, gloves, and footwear; interlining fabrics</p>
<b>Other Requirements</b>	<p>General materials:</p> <p>- no celluloid - no cellulose nitrate except when used in varnish or paint - no flammable gas, liquid and solid</p>		<p>General materials:</p> <p>- no celluloid - no cellulose nitrate except when used in varnish or paint - no flammable gas, liquid and solid</p> <p>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</p> <p>Test chamber: air movement &lt; 0.2 m/s; 10-30 °C, RH 15-80% Toy position vertically.</p>	<p>Test condition: 20-30 °C, RH 20-70%</p>



## Abuse Testing Requirements

Tests	Age (Months)	Australia/ New Zealand AS/NZS ISO 8124-1:2009	Canada CHP (Toys) Regulation	Europe EN71 Part 1: 2005	USA CPSC/ASTM F963-08
<b>Drop</b>	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)	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)
<b>Compression</b>	0 to ≤ 18 > 18 to ≤ 36 > 36 to ≤ 168	114 N ± 2.0 N  114 N ± 2.0 N  136 N ± 2.0 N (up to 96 months)	10 lbs (44.5 N)	For mask & helmets and toys < 36 months only  110 ± 5 N (24.7 lbs)	20 ± 0.5 lbs (89.0 3 2 N)  25 ± 0.5 lbs (111.3 3 2 N)  30 ± 0.5 lbs (113.5 3 2 N) (> 36 to ≤ 96 months)
<b>Torque</b>	0 to ≤ 18 > 18 to ≤ 36 > 36 to ≤ 168	0.45 N.m ± 0.02 N.m  0.45 N.m ± 0.02 N.m  0.45 N.m ± 0.02 N.m (up to 96 months)	For rattle: 1 Nm (10.2 kg-cm)	For mouth-actuated toys, masks and helmets, aquatic toys, and toys < 36 months, 0.34 Nm (3.5 kg-cm) or a rotation of 180°	2 ± 0.2 in-lbs (2.3 3 0.2 kg-cm)  3 ± 0.2 in-lbs (3.5 3 0.2 kg-cm)  4 ± 0.2 in-lbs (4.6 3 0.2 kg-cm) (> 36 to ≤ 96 months)
<b>Tension</b>	0 to ≤ 18 > 18 to ≤ 36 > 36 to ≤ 168	70 N ± 2 N  70 N ± 2 N  70 N ± 2 N (up to 96 months)	For eye/nose: 20 lbs (9 kg)  For rattle: 50 N (11.23 lbs)  Others: 10 lbs (44.5N)	≤ 6mm; 50 ± 2 N (11.2 lbs)  > 6 mm: 90 ± 2 N (20.2 lbs)  Seams: 70 ± 2 N  Protective: 60 ± 2 N	10 ± 0.5 lbs (44.5 3 2 N)  15 ± 0.5 lbs (66.8 3 2 N)  15 ± 0.5 lbs (66.8 3 2 N) (> 36 to ≤ 96 months)
<b>Flexure</b>	0 to ≤ 18 > 18 to ≤ 36 > 36 to ≤ 168	70 N ± 2 N  70 N ± 2 N  70 N ± 2 N (up to 96 months)		70 ± 2 N (15.7 lbs) (≤ 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)

