

	U.S. Consumer Product Safety Commission	Issue Date: July 3, 2013
	Lab Bulletin for CPSC-recognized Consumer Product Testing Laboratories	Number: CPSCCLB-02-2013
Subject: Testing to the Safety Standard for Infant Bath Seats under 16 C.F.R. Part 1215		

Overview

On June 4, 2010, the Commission published a final rule establishing a Safety Standard for Infant Bath Seats (Standard) under section 104(b) of the Consumer Product Safety Improvement Act of 2008. The Standard, which became effective on December 6, 2010, is published in the Code of Federal Regulations at 16 C.F.R. part 1215, and the Standard currently incorporates by reference ASTM F1967-11a, *Standard Consumer Safety Specification for Infant Bath Seats*.¹ The Standard establishes performance requirements, test methods, and labeling requirements to promote the safe use of infant bath seats and reduce the risk of death and injury, particularly drownings and near-drownings, when a bath seat is occupied by an infant.

What Is an Infant Bath Seat?

An infant bath seat is used in a bath tub, sink, or similar bathing enclosure. It provides support, at a minimum, to the front and back of a seated infant during bathing by a caregiver. The scope of the regulation does not include products designed or intended to retain water for bathing, such as infant bath tubs.

Topics of Concern

Some of the key requirements for bath seats include:

- Bath seats must be stable enough to prevent tip-over incidents in “worst case scenario” situations, including bath tubs with smooth and slip-resistant surfaces.
- A passive crotch restraint must be designed to prevent a child from sliding through the front and sides of the seat.
- If suction cups are used for stability, they must adhere to both the bath seat and the test platform surfaces.
- Leg openings must be designed to prevent children from sliding through.

¹ The Standard originally incorporated by reference ASTM F1967-08a. Reference provisions in this bulletin are from the ASTM Standard.

This bulletin seeks to clarify the testing methods regarding the requirements. The provisions of concern are addressed as follows:

- 1) ***Stability Performance Requirements (§ 6.1)*** – This section requires that bath seats meet the stability requirements on two distinct test platform surfaces: (1) a smooth porcelain enamel tub surface; and (2) a slip-resistant tub surface. Testing for stability on a specified test platform using two surfaces has been in effect since 2007. When testing to the Standard, third party laboratories should be mindful not to alter the specified test platform surfaces.
 - a) ***Preparation of test platform surface #1 (§ 7.4.3)*** – The test platform identified in Section 7.4.3 consists of a specified bath tub containing two test surfaces. Test surface #1 is an area within the bath tub that has commercially available, adhesive-backed safety tread strips (for bath tub use) that are applied to the tub surface at a distance of no more than ½ inch (12 mm) apart from edge to edge. CPSC staff interprets the Standard as requiring a gap (not to exceed ½ inch) between the safety tread strips as typically indicated in product literature for bath tub safety tread strips. Staff suggests placing the safety tread strips ⅜ inch (+/- ⅛ inch) apart from edge to edge. Application of the safety tread strip without any gap is inconsistent with the manufacturer’s recommended application for the tread strips.

Test Surface #2 –
Smooth Surface



Test Surface #1 –
Safety Tread Strips



Figure 1: Test Platform containing both Test Surface #1 (Safety Tread Strips) & Test Surface #2 (Smooth Surface)



Figure 2: Spacing of the Safety Tread Strips on Test Surface #1

- b) ***The manufacturer’s instructions may not alter the test platform surface*** - The bath seat shall be installed directly onto the test platform surface specified in section 7.4.3. Thus, no pads or other separate components provided with the bath seat or sold separately can

be used to modify the condition, texture, or characteristics of the test surfaces specified in the Standard. While the Standard notes that the product should be installed “according to the manufacturer’s instructions,” the manufacturer’s instructions cannot change or alter the test platform surfaces specified in the Standard.



- c) ***Attachment components must be permanently attached to the bath seat*** - Components including, but not limited to, clamps, arms, suction cups or pads that provide the means of attachment to the adult bath tub should be permanently attached to the bath seat.
 - d) ***Angle criterion*** – One of the sub-requirements under the stability performance requirement is the bath seat shall not deflect more than 12 degrees during the test. CPSC staff measures the change in angle by measuring the angle of the aluminum test bar above the applied force location before and during the test. If the change in angle exceeds 12 degrees, then CPSC staff interprets the result to mean that the sample did not meet the regulation. This interpretation is consistent with the prior interpretations developed during the rulemaking process.²
- 2) **Leg Openings Requirements (§ 6.5)** – This section requires that “all openings on the sides of the bath seat through which a seated occupant can slide or otherwise insert any extremity shall not permit the passage of the Bath Seat Torso probe when tested in accordance with 7.7.1.” Under Section 7.7.1, the leg openings test specifies that the

² Memorandum from Patricia Edwards, Division of Mechanical Engineering, Directorate for Engineering Sciences dated January 26, 2010, Subject: Staff Response to Comments on the Infant Bath Seat Notice of Proposed Rulemaking, Section 104 of the Consumer Product Safety Improvement Act of 2008 (CPSIA). <http://www.cpsc.gov/PageFiles/126998/bathseatFR.pdf>

applied force shall be placed on the probe in the direction of the major axis of the probe from the direction of the occupant’s seating surface. CPSC staff interprets this section to mean that one may apply force to the probe by pushing or by pulling. Both are acceptable. If the laboratory chooses to pull the probe through the opening, the probe must be rigidly attached to the force measurement device.

- 3) **Openings (§ 5.6)** – This section is required to prevent entrapment due to accessibility of holes and openings. Specifically, this section states that holes or slots that extend entirely through a wall section of any rigid material less than 0.375-in. (9.53-mm) thick and admit a 0.210-in. (5.33-mm) diameter rod shall also admit a 0.375-in. (9.53-mm) diameter rod. Holes or slots that are between 0.210 in. (5.33 mm) and 0.375 in. (9.53 mm) and have a wall thickness less than 0.375 in. (9.53 mm) but are limited in depth to 0.375 in. (9.53 mm) maximum by another rigid surface shall be permissible. The product shall be evaluated in all manufacturers’ recommended use positions.

The CPSC staff interprets this section to allow multiple rigid attached parts to create the hole or opening. The staff interprets the term “wall section” to mean a testable opening that could be created through a single part or at the edge of multiple adjoining components. The staff interprets the term “entirely through” to mean that the opening shall penetrate a thin section of material, but an opening does not need to pass through the entire part for it to be a testable location. The CPSC staff uses the following chart in assessing this requirement.

<u>“Test” Statement</u>	<u>Result Statement</u>
If thickness of rigid wall material is \geq 0.375 inches,	Then, no probe testing required. (Unit Met the requirements.) See Figure 4.
If thickness of rigid wall material is \leq 0.375 inches, and admits 0.210” probe, and the opening also admits the 0.375” probe,	Then, the unit met the requirements. See Figure 5.
If the thickness of rigid wall material is \leq 0.375 inches, admits 0.210” probe, and <u>does not</u> admit the 0.375” diameter probe, but the depth of the opening is smaller than 0.375,”	Then, the unit met the requirements. See Figure 6.
If the thickness of rigid wall material is \leq 0.375 inches, admits 0.210” probe, <u>does not</u> admit the 0.375” diameter probe, and the depth of the opening is <u>larger</u> than 0.375,”	Then, the unit did not meet the requirements. See Figure 7.

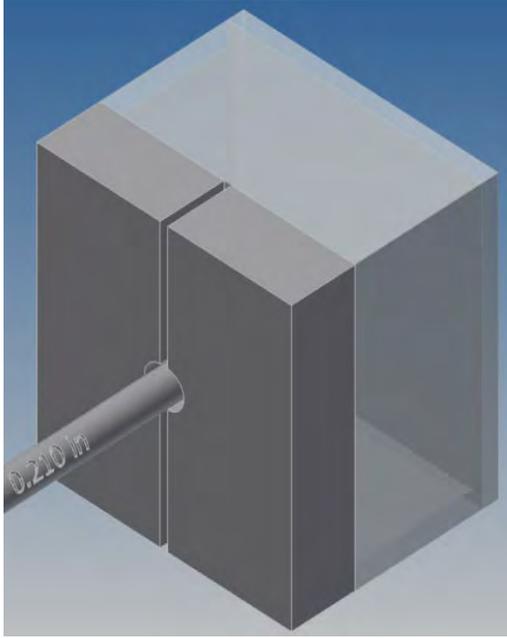


Figure 4: Wall Thickness ≥ 0.375 in.

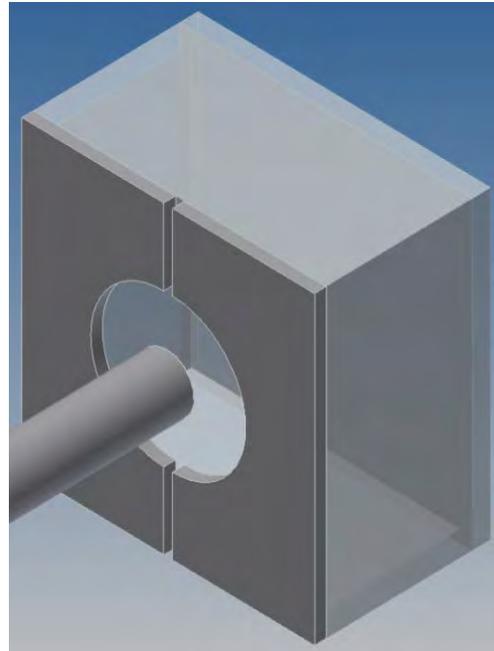


Figure 5: Hole size > 0.375 in.

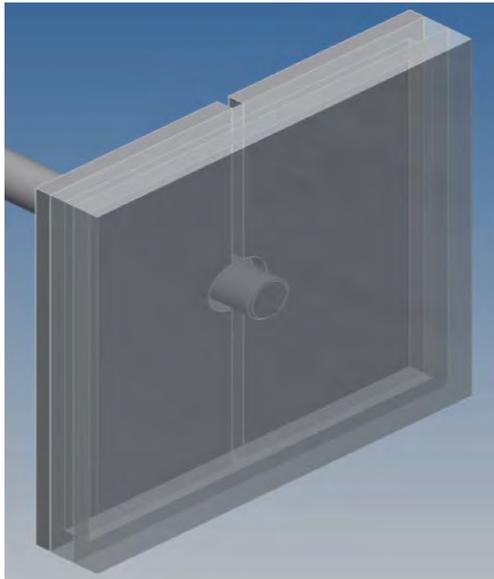


Figure 6: Opening depth ≤ 0.375 in.

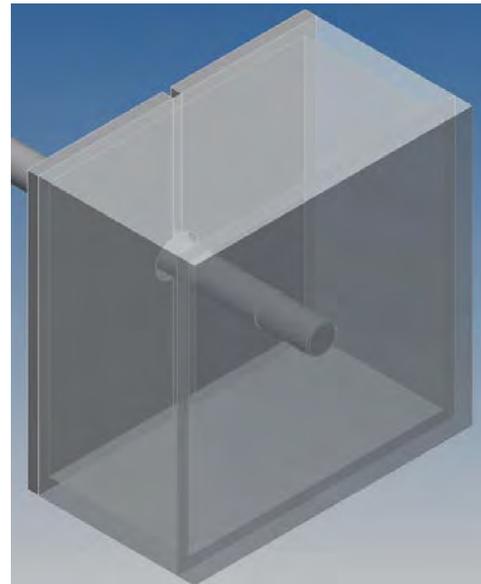


Figure 7: Wall thickness < 0.375 in. Opening size between 0.210 in and 0.375 in. Opening depth ≥ 0.375 in.

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