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Standard Consumer Safety Performance Specification for Infant Bedding and Related Accessories¹

This standard is issued under the fixed designation F1917; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

INTRODUCTION

This consumer safety performance specification addresses incidents associated with infant bedding and related accessories that were reported to the U.S. Consumer Product Safety Commission (CPSC). These incident reports involved entanglement or strangulation on decorative ribbons, bumper guard ties, wall hangings, fitted sheets, and threads resulting from unraveled seams. It also addresses potential suffocation on decorative pillows placed in cribs.

In response to the incident data developed by the CPSC, this consumer safety performance specification attempts to minimize the problems listed above. This effort is accomplished through the establishment of performance requirements and warning labels for infant bedding and accessories. This specification cannot prevent incidents that occur as the result of unforeseeable abuse and misuse.

NOTE 1—This consumer safety performance specification is not intended to address incidents and injuries resulting from the interaction of other persons with children using these products or the incidents resulting from unforeseeable abuse and misuse.

This consumer safety performance specification has been written based on current state-of-the-art softgoods technology. This consumer safety performance specification will be updated whenever substantive information becomes available.

1. Scope

1.1 This consumer safety performance specification establishes safety performance requirements, test methods, and requirements for labeling to minimize the identified hazards to children presented by infant bedding and related accessories as identified in the introduction.

1.2 No infant bedding or related accessory produced after the approval date of the consumer safety performance specification shall indicate, either by label or other means, compliance with this specification unless it conforms to all applicable requirements contained herein.

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.4 The following safety hazards caveat pertains only to the test method portion, Section 8, of this consumer safety performance specification: *This standard does not purport to address*

the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Referenced Documents

2.1 *ANSI Standard:*²
ANSI Z535.4 Product Safety Signs and Labels

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *attachment means, n*—flexible ribbons, strings, hook and loop straps, ties, and similar devices attached to a bumper for the purpose of attaching to a crib.

3.1.2 *decorative components, n*—ornamental components attached to a crib bumper for the exclusive use of being a decorative component.

3.1.2.1 *Discussion*—Decorative components include, but are not limited to ribbons, strings, buttons, appliqués, embellishments, etc.

3.1.3 *fabric, n*—any woven, knit, flexible material that is intended to be sewn together as an assembly.

¹ This consumer safety performance specification is under the jurisdiction of ASTM Committee F15 on Consumer Products and is the direct responsibility of Subcommittee F15.19 on Infant Bedding.

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² Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.

3.1.4 *infant bedding and related accessories, n*—includes the following items intended for use in a nursery: fitted sheets, blankets, dust ruffles, covers and drapes for canopies, pillows, mattress covers, diaper stackers, fabric wall hangings, bumper guards, headboard bumper guards, and comforters.

3.1.5 *supported vinyl, n*—calandered sheet vinyl that has been laminated or bonded to a supporting material such as nylon scrim, a polyester non-woven, or other fabric material on the back or has a supporting material integrated inside the vinyl sheet such that the material is not 100 % vinyl.

3.1.6 *unsupported vinyl, n*—a flat sheet material calandered from 100 % vinyl plastic.

4. Calibration and Standardization

4.1 The relevant tests for an infant bedding product or related accessory can be done in any order, except where specified.

4.2 Each test may be conducted on a different sample, unless otherwise specified.

4.3 If during the course of conducting tests in accordance with this specification, a test sample sustains any permanent deformation or damage, an additional test sample shall be used for the remainder of the tests unless otherwise specified.

5. General Requirements

5.1 Attachment means on bumper guards and headboard bumper guards shall not exceed 9.0 in. (230 mm) when measured in accordance with 7.1.

5.2 Decorative components as defined in 3.1.2 shall not exceed 7 in. (180 mm) when measured in accordance with 7.1. If any decorative components can tangle to form a loop, then the perimeter of the loop shall not exceed 14 in. (360 mm) when measured in accordance with 7.1.

5.3 *Threads*—Use of monofilament thread in the construction of infant bedding and related accessories is prohibited.

5.4 Bumper guards shall be capable of being secured at or near all corners and at the midpoints of the long sides of the crib. Bumper guards intended for circular cribs shall be capable of being secured at intervals not exceeding 26 in. (660 mm).

6. Performance Requirements

6.1 *Unsupported Vinyls:*

6.1.1 Unsupported vinyl that is accessible to the infant when the product is installed in the manufacturer’s recommended use position shall be 0.012-in. (0.30-mm) nominal thickness or thicker gauge. No minimum thickness is specified for supported vinyl. Any infant bedding or related accessory item composed entirely or in part of unsupported vinyl shall be tested in accordance with 7.2.

6.1.2 Unsupported vinyl materials that are not accessible to the infant when the product is installed in the manufacturer’s recommended use position, such as unsupported vinyl used as a liquid barrier in a mattress cover and sandwiched between two layers of fabric are not required to be tested accordance with 7.2.

6.2 *Maximum Bumper Thickness*—For crib bumpers manufactured of fabric and filled with a natural or manmade fibrous material, each bumper section shall slide through the bumper thickness test fixture (see Fig. 1) over its entire length when tested in accordance with 7.3. The bumper shall be tested in its pre-washed state and also after three wash/dry cycles performed according to the manufacturer’s care instructions.

6.3 *Bumper Pad Tie Strength*—Following the testing specified in 7.4, a bumper pad tie shall not fully detach from the bumper pad. Partial detachment or tearing is allowed.

7. Test Methods

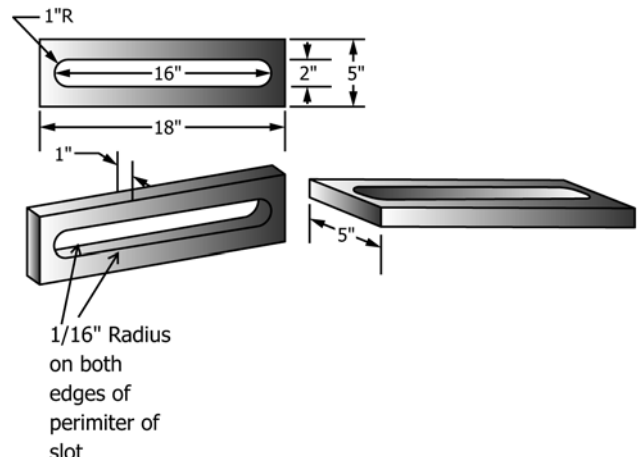
7.1 *Attachment Means and Decorative Components*—Measure each attachment means or decorative component when it is extended to its maximum length under a force of 5 lbf (22 N).

7.2 *Vinyl Thickness Measurement*—Using a paper micrometer, measure the thickness at four locations, one at each end and two in a location near the middle.

7.3 *Bumper Thickness Test*—Align the bumper thickness test fixture so that the surface of the fixture with the opening is horizontal. Insert a bumper end into the opening so that the bumper end protrudes just beyond the lower surface of the test fixture and attach a 5-lb static weight to the midpoint of the protruding bumper end. Keeping the bumper positioned vertically, allow the weight to slowly draw the bumper through the opening.

NOTE 2—If bumper ties or other localized means provided to secure the bumper to the crib interfere with the bumper sliding through the bumper thickness test fixture, ease the ties or fasteners through the fixture and then continue the test.

7.4 *Bumper Pad Tie Attachment Strength*—Apply a tensile force of 20 lb on the bumper pad tie(s) in a perpendicular direction away from the attachment point of the ties to the bumper pad. The force shall be applied evenly within a period of 5 s, and maintained for additional 10 s. The loading device shall be a self-indicating force gauge or other appropriate means having an accuracy of ±0.5 lb (±2 N).



Note: Test fixture shall be fabricated from aluminum and have a smooth finish
FIG. 1 Bumper Thickness Test Fixture