



Designation: F2057 – 19

## Standard Safety Specification for Clothing Storage Units<sup>1</sup>

This standard is issued under the fixed designation F2057; 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 specification is intended to address incidents reported by the U.S. Consumer Product Safety Commission (CPSC) relating to clothing storage units. In response to the incident data compiled by the CPSC, this consumer safety specification attempts to minimize the hazards associated with these products. This consumer safety specification does not apply to products that are blatantly misused, nor does it apply to products used by consumers in a careless manner that violate normal practice or disregard the instructions or warnings provided with the product, or both.

### 1. Scope

1.1 This safety specification is intended to reduce injuries and deaths of children from hazards associated with tipover of free-standing clothing storage units, including but not limited to chests, chests of drawers, drawer chests, armoires, chifferobes, bureaus, door chests and dressers, 27 in. (686 mm) and above in height.

1.2 This safety specification does not cover shelving units, such as bookcases or entertainment furniture, office furniture, dining room furniture, jewelry armoires, underbed drawer storage units, occasional/accent furniture not intended for bedroom use, laundry storage/sorting units, nightstands, or built-in units intended to be permanently attached to the building, nor does it cover “Clothing Storage Chests” as defined in Consumer Safety Specification **F2598**.

1.3 This safety specification is intended to cover children up to and including age five.<sup>2</sup>

1.4 This safety specification replaces PS 110–98.

1.5 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.

1.6 The following safety hazards caveat pertains only to the test procedure portion, Section 7, of this safety specification: *This standard does not purport to address all of the safety*

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

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

### 2. Referenced Documents

2.1 *ASTM Standards:*<sup>3</sup>

**D3359** Test Methods for Rating Adhesion by Tape Test  
**F2598** Consumer Safety Specification for Clothing Storage Chests

**F3096** Performance Specification for Tipover Restraint(s) Used with Clothing Storage Unit(s)

2.2 *Other Standards:*

**ANSI Z535.4** American National Standard for Product Safety Signs and Labels<sup>4</sup>

**ANSI UL 1678** Standard for Household, Commercial, and Institutional-Use Carts, Stands and Entertainment Centers for Use with Audio and/or Video Equipment<sup>5</sup>

### 3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

<sup>1</sup> This safety specification is under the jurisdiction of ASTM Committee **F15** on Consumer Products and is the direct responsibility of Subcommittee **F15.42** on Furniture Safety.

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<sup>2</sup> The majority (approximately 80 %) of deaths relate to children 5 years or younger.

<sup>3</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>4</sup> Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

<sup>5</sup> Available from Underwriters Laboratories (UL), 2600 N.W. Lake Rd., Camas, WA 98607-8542, <http://www.ul.com>.

3.1.1 *clothing storage unit, n*—furniture item with drawers and/or hinged doors intended for the storage of clothing typical with bedroom furniture.

3.1.2 *nightstand, n*—a small furniture item for use beside a bed, intended to hold or store items including but not limited to a lamp, alarm clock, a book, magazines, or reading glasses.

3.1.3 *operational sliding length, n*—length measured from the inside face of the drawer back to the inside face of the drawer front with measurements taken at the shortest drawer depth dimension (see Fig. 1).

3.1.4 *outstop, n*—any feature that limits outward motion of drawers or pullout shelves, or both.

3.1.5 *tipover, n*—event at which a furniture unit pivots forward to the point at which the unit continues to fall.

3.1.6 *tipover restraint, n*—supplemental device that aids in the prevention of tip over.

## 4. Performance Requirements

4.1 With the unit empty and without the tipover restraint, test the unit in accordance with 7.1 and 7.2.

4.2 During the test, the unit shall not tip over or be supported by any component unless that component was specifically designed for that purpose.

4.3 If a failed component prohibits the completion of the test, then the failed component(s) shall be repaired or replaced to the original specifications, or the component replaced and the test repeated with the failed component secured as to not affect the test results but to prevent the component from failing.

4.4 Tipover restraints shall be included with each item of furniture covered under the scope of this safety specification for attachment by the consumer.

4.5 The tipover restraint provided shall meet the requirement of Specification F3096.

## TEST METHOD

## 5. Scope

5.1 This test method is designed to test free-standing clothing storage unit tipover.

## 6. Significance and Use

6.1 The test method in 7.1.2 and 7.2.2 was developed to show how far the drawers of the unit being tested should be pulled out regardless of whether there are outstops or not.

## 7. Test Procedure

### 7.1 Stability of Unloaded Unit:

7.1.1 Position the empty unit on a hard, level, flat surface. The unit shall be level during testing unless specifically designed otherwise.

7.1.2 Open all doors to 90° (see Fig. 2) and extend all drawers or pullout shelves, or both, to the outstop or, in the absence of such feature, to  $\frac{2}{3}$  (66 %) of their operational sliding length (see 3.1.3 and Fig. 1). Open flaps or drop fronts to their horizontal position or as near horizontal as possible.

### 7.2 Stability with Load:

7.2.1 Position the empty unit in accordance with 7.1.1.

7.2.2 Open one drawer to the outstop or, in the absence of such a feature, to  $\frac{2}{3}$  (66 %) of its operational sliding length. All other drawers and doors not undergoing testing shall be in the closed position unless they must be opened to access other components behind them. Test in accordance with 7.2.4. Close drawer and repeat until all drawers have been tested. (See Fig. 3.)

7.2.3 Open one door to 90°. All other drawers and doors not undergoing testing shall be in the closed position unless they must be opened to access other components behind them. Test in accordance with 7.2.4. Close door and repeat with another door until all doors have been tested. (See Fig. 3.)

7.2.4 Gradually apply test weights (see Fig. 4) over the front of each drawer. For odd-shaped drawers, apply test weights to the front edge that protrudes the farthest (see Fig. 5). For doors, apply test weights to each door so that the outer edge of the test weight is flush with the outermost upper corner of the door (see Fig. 3).

### 7.3 Permanency of Labels and Warnings Testing:

7.3.1 A paper label shall be considered permanent if, during an attempt to remove it without the aid of tools or solvents, it cannot be removed, it tears into pieces upon removal, or such action damages the surface to which it is attached.

7.3.2 A non-paper label shall be considered permanent if, during an attempt to remove it without the aid of tools or solvents, it cannot be removed or such action damages the surface to which it is attached.

7.3.3 *Adhesion Test for Warnings Applied Directly onto the Surface of the Product:*

7.3.3.1 Apply the tape test defined in Test Method B – Cross-Cut Tape Test of Test Methods D3359 eliminating parallel cuts.

7.3.3.2 Perform this test once in each different location where warnings are applied.

7.3.3.3 The warning statements shall be considered permanent if the printing in the area tested is still legible and attached after being subjected to this test.

## 8. Marking and Labeling

### 8.1 Warnings on Product:

8.1.1 Each clothing storage unit shall be permanently marked in at least one place with the warnings from this section. The warnings shall be in a conspicuous location when in use; the back of the unit intended to be placed against the wall is not considered conspicuous when in use.

### 8.2 Warnings Format and Content:

8.2.1 The warnings shall be formatted in a manner consistent with ANSI Z535.4. See Fig. 6 and Fig. 7 for examples.

8.2.2 The signal word panel shall include the Safety Alert Symbol “⚠” and state “WARNING” in all caps, bold face type not less than 0.15 in. (3.8 mm) capital letter height in a sans serif font. The letter color shall be safety black on a safety orange or safety white background, or safety white on a safety black background.

8.2.3 In the following sections, the plain type is descriptive information; bold type is used for the required warning

statements. The warning statements, unless otherwise noted, shall be included as stated. All text shall be a sans serif font, not less than 0.1 in. (2.5 mm) capital letter height. The text shall be safety black letters on a safety white background or the letters shall contrast the background.

8.2.3.1 The warning message panel shall begin with the following statement in bold face type. **Children have died from furniture tipover. To reduce the risk of furniture tipover:**

8.2.3.2 The warning message panel shall include the following statements, preceded by a bullet point, in the order given.

8.2.3.3 **ALWAYS install tipover restraint provided.**

8.2.3.4 Television use shall be addressed in the warnings by following either 8.2.3.4(1) or 8.2.3.4(2).

(1) For clothing storage units that are not designed and intended by the manufacturer to be used with a TV shall state: **NEVER put a TV on this product.**

(2) For clothing storage units that are designed and intended by the manufacturer to be used with a TV, the warning shall address TV use. See Appendix X1 for reference.

8.2.3.5 **NEVER allow children to stand, climb, or hang on drawers, doors, or shelves.**

8.2.3.6 **NEVER open more than one drawer at a time.**

8.2.3.7 When the unit includes interlocking drawers: **DO NOT defeat or remove the drawer interlock system.** Units that do not include interlocking drawers shall not use this statement.

8.2.3.8 **Place heaviest items in the lowest drawers.**

8.2.3.9 The following statement is required below all other text, in italic letters, this statement may not be larger type than any other wording on the warning: ***This is a permanent label. Do not remove!***

8.2.4 Each safety symbol panel shall measure at least 1.25 in. by 1.25 in. (31.8 mm by 31.8 mm); each safety symbol shall measure at least 1 in. by 1 in. (25.4 mm by 25.4 mm). Each symbol shall be safety black with either a safety black or safety red prohibition symbol or the symbol shall contrast with the background. The safety symbol panel for each symbol shall be

bounded on all sides with a safety black line or the line shall contrast with the background.

8.2.4.1 The child climbing prohibition symbol shown in Fig. 8 shall be used on all warning labels.

8.2.4.2 The TV prohibition symbol shown in Fig. 9 shall be used on units that include the warning in 8.2.3.4(1).

8.2.5 The contents of the warnings shall not be modified except as specifically indicated above and/or to include languages other than English.

8.2.6 The warnings shall be permanent when tested in accordance with 7.3.1, 7.3.2, or 7.3.3 as appropriate.

## 9. Precision and Bias

9.1 No information is presented because the test result is non-quantitative.

## 10. Keywords

10.1 chests; children; consumer safety specifications; door chests; drawers; dressers; free standing clothing storage unit; furniture; outstop; tipover

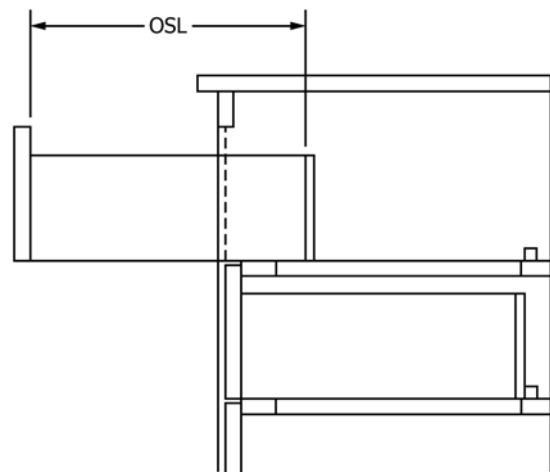


FIG. 1 Operational Sliding Length (OSL)