

SCREWS) IN RELATION TO PORTABLE FRAME ALLOWING BURNER HEIGHT ADJUSTMENT

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FIGURE 17 TO PART 1633—LABEL FOR IMPORTED MATTRESS ONLY

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Subpart A—The Standard

§ 1633.1 Purpose, scope and applicability.

(a) *Purpose.* This part 1633 establishes flammability requirements that all mattress sets must meet before sale or introduction into commerce. The purpose of the standard is to reduce deaths and injuries associated with mattress fires by limiting the size of the fire generated by a mattress set during a thirty minute test.

(b) *Scope.* (1) All mattress sets, as defined in §1633.2(c), manufactured, imported, or renovated on or after the effective date of this standard are subject to the requirements of the standard.

(2) One-of-a-kind mattress sets may be exempted from testing under this standard in accordance with §1633.13(c).

(c) *Applicability.* The requirements of this part 1633 shall apply to each “manufacturer” (as that term is defined in §1633.2(k)) of mattress sets which are manufactured for sale in commerce.

§ 1633.2 Definitions.

In addition to the definitions given in section 2 of the Flammable Fabrics Act as amended (15 U.S.C. 1191), the following definitions apply for purposes of this part 1633.

(a) *Mattress* means a resilient material or combination of materials enclosed by a ticking (used alone or in combination with other products) intended or promoted for sleeping upon. This includes mattresses that have undergone renovation as defined in paragraph (d) of this section.

(1) This term includes, but is not limited to, adult mattresses, youth mattresses, crib mattresses (including portable crib mattresses), bunk bed mattresses, futons, flip chairs without a permanent back or arms, sleeper chairs, and water beds or air mattresses if they contain upholstery material between the ticking and the mattress core. Mattresses used in or as part of upholstered furniture are also included; examples are convertible sofa bed mattresses, corner group mattresses, day bed mattresses, roll-away bed mattresses, high risers, and trundle bed mattresses. See §1633.9 Glossary of terms, for definitions of these items.

(2) This term excludes mattress pads, mattress toppers (items with resilient filling, with or without ticking, intended to be used with or on top of a mattress), sleeping bags, pillows, liquid and gaseous filled tickings, such as water beds and air mattresses that contain no upholstery material between the ticking and the mattress core, upholstered furniture which does not contain a mattress, and juvenile product pads such as car bed pads, carriage pads, basket pads, infant carrier and lounge pads, dressing table pads, stroller pads, crib bumpers, and playpen pads. See §1633.9 Glossary of terms, for definitions of these items.

(b) *Foundation* means a ticking covered structure used to support a mattress or sleep surface. The structure may include constructed frames, foam, box springs, or other materials, used alone or in combination.

(c) *Mattress set* means either a mattress and foundation labeled by the manufacturer for sale as a set, or a mattress labeled by the manufacturer for sale without any foundation.

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(d) *Renovation* means altering an existing mattress set for the purpose of resale.

(1) This term includes any one, or any combination of the following: replacing the ticking or batting, stripping a mattress to its springs, rebuilding a mattress, or replacing components with new or recycled materials.

(2) This term excludes alterations if the person who renovates the mattress intends to retain the renovated mattress for his or her own use, or if a customer or a renovator merely hires the services of the renovator and intends to take back the renovated mattress for his or her own use.

(e) *Ticking* means the outermost layer of fabric or related material of a mattress or foundation. It does not include any other layers of fabric or related materials quilted together with, or otherwise attached to, the outermost layer of fabric or related material.

(f) *Upholstery material* means all material, either loose or attached, between the mattress ticking and the core of a mattress.

(g) *Edge* means the seamed, unseamed or taped border edge of a mattress or foundation that joins the top and/or bottom with the side panels.

(h) *Tape edge* means an edge made by using binding tape to encase and finish raw edges.

(i) *Binding tape* means a fabric strip used in the construction of some edges.

(j) *Seam thread* means the thread used to form stitches in construction features, seams, and tape edges.

(k) *Manufacturer* means an individual plant or factory at which mattress sets are manufactured or assembled. For purposes of this part 1633, importers and renovators are considered manufacturers.

(l) *Prototype* means a specific design of mattress set that serves as a model for production units intended to be introduced into commerce and is the same as the production units with respect to materials, components, design and methods of assembly. A mattress intended for sale with a foundation(s) shall be considered a separate and distinct prototype from a mattress intended for sale without a foundation.

(m) *Prototype developer* means a third party that develops a prototype for use by a manufacturer. Such prototypes may be qualified by either the prototype developer or by the manufacturer.

(n) *Qualified prototype* means a prototype that has been tested in accordance with §1633.4(a) and meets the criteria stated in §1633.3(b).

(o) *Confirmed prototype* means a prototype that is part of a pooling arrangement and is the same as a qualified prototype with respect to materials, components, design and methods of assembly and has been tested in accordance with §1633.5(a)(3) and meets the criteria stated in §1633.3(b).

(p) *Subordinate prototype* means a mattress set that is based on a qualified or confirmed prototype and is the same as the qualified or confirmed prototype, except as permitted by §1633.4(b). A subordinate prototype is considered to be represented by a qualified or confirmed prototype and need not be tested in accordance with §1633.4(a) or §1633.5(a)(3).

(q) *Prototype pooling* means a cooperative arrangement—whereby one or more manufacturers build mattress sets based on a qualified prototype produced by another manufacturer or prototype developer. A manufacturer who relies on another manufacturer's or prototype developer's qualified prototype must perform a confirmation test on the mattress set it manufactures.

(r) *Confirmation test* means a pre-market test conducted by a manufacturer who is relying on a qualified prototype produced by another manufacturer or prototype developer. A confirmation test must be conducted in accordance with the procedures set forth in §1633.7 and meet the criteria in §1633.3(b).

(s) *Production lot* means any quantity of finished mattress sets that are produced in production intervals defined by the manufacturer, and are intended to replicate a specific qualified, confirmed or subordinate prototype that complies with this part 1633.

(t) *Specimen* means a mattress set tested under this regulation.

(u) *Twin size* means any mattress with the dimensions 38 inches (in) (965 millimeters) × 74.5 in. (1892 mm); all dimensions may vary by $\pm\frac{1}{2}$ in. (± 13 mm).

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(v) *Core* means the main support system that may be present in a mattress, such as springs, foam, water bladder, air bladder, or resilient filling.

§ 1633.3 General requirements.

(a) *Summary of test method.* The test method set forth in §1633.7 measures the flammability (fire test response characteristics) of a mattress specimen by exposing the specimen to a specified flaming ignition source and allowing it to burn freely under well-ventilated, controlled environmental conditions. The flaming ignition source shall be a pair of propane burners. These burners impose differing fluxes for differing times on the top and sides of the specimen. During and after this exposure, measurements shall be made of the time-dependent heat release rate from the specimen, quantifying the energy generated by the fire. The rate of heat release must be measured by means of oxygen consumption calorimetry.

(b) *Test criteria.* (1) When testing the mattress set in accordance with the test procedure set forth in §1633.7, the specimen shall comply with both of the following criteria:

(i) The peak rate of heat release shall not exceed 200 kilowatts (“kW”) at any time within the 30 minute test; and

(ii) The total heat release shall not exceed 15 megajoules (“MJ”) for the first 10 minutes of the test.

(2) In the interest of safety, the test operator should discontinue the test and record a failure if a fire develops to such a size as to require suppression for the safety of the facility.

(c) *Testing of mattress sets.* Mattresses labeled for sale with a foundation shall be tested with such foundation. Mattresses labeled for sale without a foundation shall be tested alone.

(d) *Compliance with this standard.* Each mattress set manufactured, imported, or renovated on or after the effective date of the standard shall meet the test criteria specified in paragraph (b) of this section and otherwise comply with all applicable requirements of this part 1633.

§ 1633.4 Prototype testing requirements.

(a) Except as otherwise provided in paragraph (b) of this section, each

manufacturer shall cause three specimens of each prototype to be tested according to §1633.7 and obtain passing test results according to §1633.3(b) before selling or introducing into commerce any mattress set based on that prototype, unless the manufacturer complies with the prototype pooling and confirmation testing requirements in §1633.5.

(b) Notwithstanding the requirements of paragraph (a) of this section, a manufacturer may sell or introduce into commerce a mattress set that has not been tested according to §1633.7 if that mattress set differs from a qualified or confirmed prototype only with respect to:

(1) Mattress/foundation length and width, not depth (*e.g.*, twin, queen, king);

(2) Ticking, unless the ticking of the qualified prototype has characteristics (such as chemical treatment or special fiber composition) designed to improve performance on the test prescribed in this part; and/or

(3) Any component, material, design or method of assembly, so long as the manufacturer can demonstrate on an objectively reasonable basis that such differences will not cause the mattress set to exceed the test criteria specified in §1633.3(b).

(c) All tests must be conducted on specimens that are no smaller than a twin size, unless the largest size mattress set produced is smaller than a twin size, in which case the largest size must be tested.

(d)(1) If each of the three specimens meets both the criteria specified in §1633.3(b), the prototype shall be qualified. If any one (1) specimen fails to meet the test criteria of §1633.3(b), the prototype is not qualified.

(2) Any manufacturer may produce a mattress set for sale in reliance on prototype tests performed before the effective date of this Standard, provided:

(i) The manufacturer has documentation showing that such tests were conducted in accordance with all requirements of this section and §1633.7 and yielded passing results according to the test criteria of §1633.3(b);

(ii) Any tests conducted more than 30 days after publication of this standard in the FEDERAL REGISTER must comply