

EXTRA – LONG TWIN MATTRESS TECHNICAL SPECIFICATION

DESCRIPTION

Extra – Long Twin Mattress

FINISH

Duratex Moisture Barrier Fabric by AMF Support Surfaces or similar.

MEASUREMENTS

36” W x 80” L x 7” H

CORE MATERIAL

- ◇ All mattresses shall be manufactured in accordance with the best practice known to the manufacturing industry and shall be clean and free from defects in material and workmanship.

FABRICATION

- ◇ **TICKING:** The mattress shall be covered Duratex Moisture Barrier Fabric, with a yarn size of no less than 190 but not greater than 250 where coating imparts the qualities of waterproofness, anti-bacterial, anti-fungal, and a moisture vapor transmission rate of less than 250 grams per squared over a 24 hour period. PVC Coatings are unacceptable. The mattress will be manufactured with the fabric side out.
- ◇ The top and bottom sections in the mattress ticking shall be made up of one full width of fabric with no seams. The ticking used for the borders shall contain not more than one seam with all ends hemmed, spliced and securely sewn together by machine in such manner as to leave no break in the uniformity and finish.
- ◇ **SPRING UNIT:** All wire spring unit, knotted-coil construction shall consist of transverse rows of coils connected by the use of helicals running at right angles of the long axis of the unit in such a manner as to prevent a free hinge action. All coils shall be of hourglass shape.
- ◇ Each unit is to contain a minimum of 208 coils in a row configuration of 8 x 26. All coils of this unit are to be made of 13-gauge spring wire. All helicals to be made of 17.5 gauge spring wire. All spring wire used in the construction of these units is to be high carbon steel wire.
- ◇ Units to be 5” high. Each coil to contain a minimum of five turns or convolutions. All portions of the spring unit shall be properly oven tempered to relieve internal stress and eliminate permanent stress from loading.
- ◇ Each unit to have a helical or clipped border on both top and bottom perimeters with a #6 gauge oil tempered border wire. The corners of this unit to have a 2 ½” radius.
- ◇ The size of the innerspring unit shall be not less than 34 ½” x 78 ½” and shall be manufactured to properly fit the specified bed size of 36” x 80”.
- ◇ Each innerspring unit will be reinforced with six double-edge supports made of 11-gauge spring wire. These edge supports shall be installed two on each side and one on each end to provide optimal edge strength.

EXTRA – LONG TWIN MATTRESS
TECHNICAL SPECIFICATION - Continued

- ◇ **UPHOLSTERING:** Each side shall then be covered with a 2 oz. per square foot bonded polyester pad measuring 36” x 81”. Batts precompressed of fire retardant cotton felt consisting of one unit size batt per side shall be placed over the polyester pad. A 1” x 40” x 85” co-polymer foam topper shall be placed over the cotton felt on each side. The density of the co-polymer foam is to be a minimum of 1.5 lbs. per cubic foot. IFD, measured on a 4” sample at 25%, to be 34-37 lbs. Compression modulus of the foam will be between 1.9 and 2.0. Hysteresis loss is 20% maximum.
- ◇ Foam must pass California Technical Bulletin #117 flammability standard. An inner roll edge shall be made by enfolding the foam topper around the edge of the polyester and placing the cover, flanged with 2 oz per square yard typar, over the topper and securing the cover by hog ringing the flange to the outside coils of the innerspring unit.
- ◇ A fire barrier consisting of Ventex Integrity 30™ fabric shall be placed over all the upholstery in such a way that it completely encapsulates the entire mattress forming a full fire barrier. The ends of the barrier shall be completely closed.
- ◇ The border shall be of the same material as the top and bottom panels and shall contain two welded vents in one end. The vents shall be installed in such a way as to NOT break the fire barrier.
- ◇ All cotton felt shall be a mixture of 2/3 U.S. Government grade No. 2 first cut cotton linters and 1/3 white willowed picker. The cotton fibers are to be sprayed with a naphthnic base oil and then treated with borax powder in such a way that the oil and the powder impregnate the entire thickness of the felt in order to render the felt flame retardant. Total cotton felt weight for this mattress shall be no less than 8 pounds.
- ◇ The edges of the mattress shall be finished with a woven polyester tape sewn into place with a lock stitch to prevent unraveling.
- ◇ The finished size of this mattress is to be 36” x 80”, with an overall thickness of 7”.
- ◇ **FLAMMABILITY TEST REQUIREMENTS:** The mattress shall meet the flammability requirements of the following test methods:
 - Consumer Product Safety Commission, part 1632 Flammability Standard for mattresses (FF4-72, as amended).
 - California Technical Bulletin #129
 - The mattress manufacturer must provide written certification with their quotation that the State of California of Home Furnishings and Thermal Insulation have certified this product to pass Technical Bulletin #129 full-scale mattress burn test.
 - Boston Fire Department IX-11 Full Composite Burn Test
 - The mattress manufacturer must provide the purchaser written certification with the quotation that this product has been certified in accordance with Boston Fire Department IX-11 (Regulatory notice of October 25, 1990 and revised August 19, 1999).
 - ASTM 1590
 - The mattress manufacturer must provide the purchaser written certification with the quotation that this mattress releases less than 100 kilowatts under ASTM 1590.
- ◇ **OTHER REQUIREMENTS:** All mattresses to be individually wrapped.
 - All quotes must include mattress warranty information.
 - Vendor shall provide the delivery and off-loading of mattresses to Cal Poly, Housing and Business Services department warehouse located on campus.