



Modern Testing Services

TEST REPORT

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 1 of 27
REVISED DATE: Mar. 08, 2023

Applicant:	TAN HOANG FURNITURE MANUFACTURING ONE MEMBER COMPANY LIMITED		
Address:	Land Lot No. 397, 1437 Map No.9, Khanh Hoi Quarter, Tan Phuoc Khanh Ward, Tan Uyen Town, Binh Duong Province, Vietnam		
Contact:	TRẦN THỊ THANH NGA		
TEL:	0274 3686723	FAX:	-
E-mail:	Congtytanhoang2403@gmail.com		
Copy To:	-		

OVERALL RATING

PASS	X
FAIL	-
DATA	-

Sample Information

Sample Description	HOUSE LOFT BED		
Style Number	1		
SKU	MF294384AAB/MF294384AAK/MF294384AAJ		
Vendor Name	-		
Quantity	-	PO Number	-
Buyer's Name	GIGACLOUD TECHNOLOGY(USA) INC	Manufacturer	-
Country of Origin	-	Country of Destination	-
Code Number	-	Dept./Key#	-
Reference item/ style number	-	Color	BLACK, WHITE, RED
Date of Submission	Feb. 08, 2023	Test Performance Dates	Feb. 08, 2023
Testing Status			
Pre-Shipment Lead Test	<input type="checkbox"/>	Test for Protocol	-
Retest	<input type="checkbox"/>	Previous Report No.:	-

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 2 of 27
REVISED DATE: Mar. 08, 2023

Sample Photos

**76123-020131 Revised 1**

For and on behalf of
Eurofins MTS Consumer Product Testing
Vietnam Ltd.



HARRY VU
HL. DEPARTMENT SUPERVISOR

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 3 of 27
REVISED DATE: Mar. 08, 2023

EXECUTIVE SUMMARY:

TESTING RESULT SUMMARY				
Test Property	PASS	FAIL	DATA	COMMENTS
Total Lead Content in Surface Coating – 16 CFR 1303	X	-	-	-
Total Lead Content in Substrate	X	-	-	-
ASTM F1427 – 21e1, Standard Consumer Safety Specification for Bunk Beds	X	-	-	-
16 CFR Part 1213 Safety Standard For Entrapment Hazards In Bunk Beds	X	-	-	-
16 CFR Part 1513 Requirements For Bunk Beds	X	-	-	-
ASTM F1148-22: Home playground Equipment	X	-	-	-
Sharp Point, Sharp Edges	X	-	-	-

Remark: The report was revised on Mar. 08, 2023 to update Applicant Information per client's request.

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 4 of 27
REVISED DATE: Mar. 08, 2023

COMPONENT BREAKDOWN LIST:

Test Item	Component Description
01	Silvery metal with black plating (Long Allen head bolt) (Additional sample was tested)
02	Silvery metal with black plating (Medium Allen head bolt) (Same item 1)
03	Silvery metal with black plating (Short Allen head bolt) (Same item 1)
04	Silvery metal with black plating (Flat washer)
05	Black coating on metal (Bunk bed) (Additional sample was tested)
06	Silvery metal (Bunk bed) (Additional sample was tested)
07	Black coating on wood (Bunkbed)
08	Particleboard
09	White paper with yellow/ red printing (Maximum label)
10	White paper with yellow/ black printing (Warning label)
11	Red coating on metal (Bunk bed) (Additional sample was tested)
12	White coating on metal (Bunk bed) (Additional sample was tested)

Remark:

- Test results of Total Lead Content in Surface Coating and Total Lead Content in Substrate for items# 01, 04, 05, 08, 09, 10 was provided by report# 96221920408
- (1) Test Result was transferred from report #76122-110247.
- (2) Test Result was transferred from report #76122-120137.

EXHIBIT BREAKDOWN:



Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 5 of 27
REVISED DATE: Mar. 08, 2023

TEST RESULT(S):

1. Total Lead Content in Paint or Similar Surface Coating – U.S. CPSC 16 CFR 1303 and U.S. Consumer Product Safety Improvement Act of 2008 (CPSIA), Title I, Section 101

Test Method: CPSC-CH-E1003-09.1. Analysis was performed by ICP-OES/ ICP-MS.

Test Item	Total Lead (Pb) (ppm)		Conclusion
	Result	Limit	
11	ND	90	PASS
12 ⁽³⁾	ND	90	PASS

Note: ND = Not Detected (Lab reporting limit: 10 ppm)
ppm = part per million = mg/kg = milligram per kilogram

2. Total Lead Content in Accessible Substrate – U.S. Consumer Product Safety Improvement Act of 2008 (CPSIA), Title I, Section 101

Test Method:

- 1) Metal components: CPSC-CH-E1001-08.3. Analysis was performed by ICP-OES/ ICP-MS.
- 2) Non-metal materials including plastics, glass and leather material: CPSC-CH-E1002-08.3. Analysis was performed by ICP-OES/ ICP-MS.

Test Item	Total Lead (Pb) (ppm)		Conclusion
	Result	Limit	
07 ⁽²⁾	ND	100	PASS

Note: ND = Not Detected (Lab reporting limit: 10 ppm)
ppm = part per million = mg/kg = milligram per kilogram

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 6 of 27
REVISED DATE: Mar. 08, 2023

3. ASTM F1427 – 21e1 STANDARD CONSUMER SAFETY SPECIFICATION FOR BUNK BEDS

Clause	Requirement	Rating	Notes
4 Performance Requirements:			
4.1 Vertical Protrusions:			
4.1.1	All vertical protrusions along the top inside surfaces of any individual component (including but not limited to bed end structures and guard rails) of the upper bunk shall not extend more than 3/16 in. (4.8 mm) above the upper edge of the adjacent surface. Ladder stiles (uprights) shall not extend more than 3/16 in. (4.8 mm) above the upper edge of the adjacent surface.	P	<input type="checkbox"/> Vertical protrusion: _____ in. Position: corner post. <input type="checkbox"/> Ladder stiles: _____ in.
4.1.2	Any cap used along the top surface of the upper bunk shall not have a vertical protrusion greater than 3/16 in. (4.8 mm) at the edge of the protrusion above the upper edge of the adjacent surface. If the cap is flush with or overhangs the edge of the corner post or other vertical protrusion, the maximum vertical protrusion shall not exceed 3/16 in. (4.8 mm). The cap shall have a maximum height of no more than 20% of the width or diameter of the cap. At no point shall the cap overhang the post more than 1/16 in. (2 mm). The cap shall fit flush with the top of the corner post.	NA	<input type="checkbox"/> H: _____ in. W: _____ in. $(H_{max} = 20\%W)$ <input checked="" type="checkbox"/> No cap
4.2	Fit of Top Bed to Bottom Bed: The bed post shall be designed so that the minimum height of lift to allow horizontal disengagement of the top bed from the bottom bed shall be 1.25in., or a fastening mechanism may be used that will prevent the disengagement of the top bed from the bottom bed.	NA	Record: _____ in. <input type="checkbox"/> A fastening mechanism provided <input type="checkbox"/> Bed post no separate
4.3	Mattress and Foundation Size and Fit (Top Bed): There shall be no gaps between the interior bed structure and the edges of the mattress and foundation that will permit complete passage of the wedge block when tested in accordance with 5.2.	P	
4.4	Mattress Size and Fit (Lower Foundation): There shall be no space, between the edge of the manufacturer's recommended mattress and the interior boundary of any component(s) attached to lower bunk (for example, ladders, book shelves, desk), greater than 1.88 in. (48 mm) and smaller than 9 in. (229 mm), when tested in accordance with 5.3.	NA	
4.5 Upper and Lower Foundation Support Systems:			
4.5.1	The foundation support systems shall confine the horizontal position of the mattress and the foundation and shall prohibit the mattress and foundation from falling when the mattress or foundation is manipulated.	P	
4.5.2	In the event cross-members are utilized, a minimum of two per bed are required. If more than two cross-members are utilized, they shall be spaced so that the distance between adjacent cross-members or between the cross-members and the bed end structures will not permit complete passage of the wedge block or will allow complete passage of both the wedge block and the 9 in. (229 mm) diameter rigid sphere when tested in accordance with 5.9.	P	Upper foundation: -Slat to slat: _3_in. -Slat to Bed end structure: _2-1/8_in.
4.5.3	The foundation support system shall not be capable of being dislodged without the release of positive fastening devices or the use of hand tools.	P	
4.5.4	The foundation support system shall not fail when tested in accordance with 5.4.	P	

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
 Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 7 of 27
REVISED DATE: Mar. 08, 2023

Clause	Requirement	Rating	Notes
4.6 Side Rails:			
4.6.1	Bolt-On Side Rails, that attach at their ends or on their side to the bed post, are secured at each end by <u>2</u> bolts with a minimum size of <u>M6</u> in. diameter/ ISO/ANSI size M6 (REQ: ≥ 0.25 in. diameter or M6) If it is wood bed, these bolts are spaced a minimum of: _____ in. apart on their center. (REQ: ≥ 1.5 in.) When the bolts are fully tightened in the assembled bed, no more than 0.25 in. of thread is exposed? <u>Yes</u>	P	If it is Hook-On side rail, NA
4.6.2	Hook-On Side Rails, securely attached to the bed post. Hook-on attachments shall require an additional action other than an upwards force to disengage.	NA	If it is Bolt-On side rail, NA
4.6.3	Side Rail Attachments: There shall be no structural failure of bed side rail fastening systems when tested in accordance with 5.5.	P	
4.7 Guardrails:			
4.7.1	The underside of the foundation is: <u>35-5/8</u> in. from the floor. (REQ: over 30 inches.) How many guardrail(s) accompany the bed: <u>2</u> (REQ: 2 guardrails.)	P	
4.7.2	Any intentional release of fastening device is present for guardrails so that they cannot be removed unless forces are applied sequentially in different direction? <u>Yes</u>	P	
4.7.3	The upper edge of the guardrails is: <u>5-5/8</u> in. above the sleeping surface when a mattress of the thickness that is the maximum specified by the manufacturer's instruction is used on the bed. (REQ: ≥ 5 in.)	P	
4.7.4	With no mattress on the bed, there shall be no openings in the rigid bed structure below the lower edge of any opening of the guardrail that would permit complete passage of the wedge block when tested in accordance with 5.6.	P	
4.7.5	The guardrail terminate before reaching the bed end structure, the distance between either end of the guardrail and the bed end structures in the same plane when measured at a point 5 in. above the sleeping surface as established by the maximum mattress thickness specified by the manufacturer: <u>14-7/8</u> in. (R: ≤ 15 in.) The second guardrail terminate before reaching the bed end structure, the distance between either end of the guardrail and the bed end structure when measured horizontally between the bed end structure and the nearest point on the guardrail: <u>0</u> in. (R: ≤ 0.22 in.)	P	

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 8 of 27
REVISED DATE: Mar. 08, 2023

Clause	Requirement	Rating	Notes
4.8 Bed Structure:			
4.8.1	<p>The total distance between the two posts at the head of the upper bunk: <u>39</u> in.</p> <p>The distance between the two posts at the head of the upper bunk at 5 in above the sleeping surface: <u>39</u> in.</p> <p>Percentage of that at the head: <u>100</u> % (R: ≥ 50%)</p> <p>The total distance between the two posts at the foot of the upper bunk: <u>39</u> in.</p> <p>The distance between the two posts at the foot of the upper bunk at 5in above the sleeping surface: <u>39</u> in.</p> <p>Percentage of that at the foot: <u>100</u> % (R: ≥ 50%)</p>	P	
4.8.2	There shall be no openings in the rigid end structures of the upper bunk/bunks that will permit the free passage of the wedge block when tested in accordance with 5.7.1. This requirement shall apply only to those portions of the bed end structure that are above the foundation support system of the upper bunk/bunks.	P	
4.8.3	When tested in accordance with 5.7.2, there shall be no openings within the entire boundary of the lower bunk that will permit free passage of the wedge block, unless they are large enough to permit the free passage of a 9 in. (229 mm) diameter rigid sphere. This requirement does not apply to openings that are below the level of the lower bunk foundation support system. This requirement shall apply to that portion of the bed structure that is between the level of the lower bunk foundation support system and the level of the upper bunk foundation support system. Such openings include, but are not limited to, bed end structures, foundation, ladders, desks, or bookshelf components, or a combination thereof, as offered with the bed for purchase and designed to be attached to the bed structure.	NA	
4.8.4	When tested in accordance with 5.7.2.3 and 5.7.2.4, all portions of the boundary of any opening of the entire lower bunk boundary that permits free passage of a 9 in. (229 mm) diameter rigid sphere also must conform to the neck entrapment requirement.	NA	
4.9 Ladders:			
4.9.1	<p>Type of ladder: <u>incorporated as part of the bed structure</u></p> <p>Is the ladder attached in a manner that prevents inadvertent disengagement, repositioning, or tilting while in use? <u>Yes</u></p>	P	<input type="checkbox"/> Not Provided <input type="checkbox"/> No Ladder

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 9 of 27
REVISED DATE: Mar. 08, 2023

Clause	Requirement	Rating	Notes
4.9.2	<p>Are there openings between ladder structures that allow complete passage of the wedge block? <u>Yes</u></p> <p>If Yes, does the 9 in. diameter rigid sphere pass freely through the openings? <u>Yes</u></p> <p>Width of the ladder measured from the inside of the stiles: <u>14-3/4</u> in. (R: ≥ 10in.) (a)</p> <p>Vertical spacing of ladder steps measured between steps: <u>13-3/8</u> in. (R: ≤ 12in.; if bed structure are used as ladders, vertical spacing ≤ 16in.) (b)</p> <p>Vertical spacing of ladder steps measured from the floor to the first step: <u>12</u> in. (R: ≤ 12in.; if bed structure are used as ladders, vertical spacing ≤ 16in.)</p>	P	
4.9.3	<p>Are there openings between the ladder step and the upper bunk boundary that allow complete passage of the wedge block? <u>Yes</u></p> <p>If Yes, does the 9 in. diameter rigid sphere pass freely through the openings? <u>Yes</u></p>	P	
4.9.4	For ladders attached to the side of the lower bed and for which mattress height is above the side rail, there shall be no gaps between the edge of the manufacturers recommended mattress and the interior vertical stile between 1.88 in. (48 mm) and 9 in. (229 mm) when tested in accordance with 5.3.	P	Record: <u>3/4</u> in.
4.10	<p>Metal Beds: Frame and Fastenings:</p> <p>There shall be no separation of any of the attachments of the foundation support system to the end structures of the bed when tested in accordance with 5.8.1.1 and 5.8.2.</p>	P	

5 Test Methods:

5.1	Is the bed assembled in accordance with the provided instructions? <u>Yes</u>	P	
5.2 Mattress and Foundation Size and Fit—Upper Foundation:			
5.2.1-5.2.3	<p>Is any gap produced in the horizontal plane between the interior bed structure and the edges of the mattress and foundation as per section 5.2.2? <u>Yes</u></p> <p>If <u>Yes</u>, does the wedge block pass through the gap(s) as per section 4.3 ? <u>No</u></p>	P	If F, attach photo and locate the failure gap(s): _____
5.3	<p>Mattress Size and Fit—Lower Foundation</p> <p>Are there any space between the edge of the manufacturer's recommended mattress and the interior boundary of any attached component is between 1.88 in. (48 mm) and 9 in. (229 mm)? <u>Yes/No</u></p>	NA	
5.4	<p>Foundation Support System</p> <p>Does the foundation support system remain in place for a minimum of 5 min as per section 4.5.4? <u>Yes</u></p>	P	

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
VIET NAM
REPORT NUMBER:
76123-020131 Revised 1
ISSUE DATE:
Feb. 21, 2023
PAGE:
10 of 27
REVISED DATE:
Mar. 08, 2023

Clause	Requirement	Rating	Notes
5.5	<p>Side Rails</p> <p>Apply force at Corner 1 of the bed? Yes</p> <p>Apply force at Corner 2 of the bed? Yes</p> <p>Apply force at Corner 3 of the bed? Yes</p> <p>Apply force at Corner 4 of the bed? Yes</p> <p>Is there no structural failure of bed side rail fastening systems as per section 4.6.3? Yes</p>	P	
5.6	<p>Guardrails</p> <p>Is there no opening in the rigid bed structure below the lower edge of any opening of the guardrail that would permit complete passage of wedge block as per section 4.7.4? Yes</p>	P	
5.7 Bed End Structures:			
5.7.1	<p>Is there no opening in the rigid end structures of the upper bunk that will permit the free passage of the wedge block as per section 4.8.2 Yes</p> <p><i>(This requirement shall apply only to that portion of the bed end structure that is above the foundation support system of the upper bunk.)</i></p>	P	
5.7.2 Lower Bunk Boundaries:			
5.7.2.1	<p>Without a mattress or foundation on the lower bunk foundation support, place the wedge block into any opening, tapered side first, in the most adverse orientation. Determine if the wedge block can pass freely through the opening. If the wedge block passes freely through the opening, determine if a 9 in. (229 mm) diameter rigid sphere can pass freely through the opening.</p>	NA	
5.7.2.2	<p>With the manufacturer's recommended mattress and foundation size in place, on the lower bunk foundation support, repeat the test in 5.7.2.1.</p>	NA	
5.7.2.3- 5.7.2.4	<p>Is any portion of the boundary of any opening of the lower bunk end structure that permits free passage of a 9 in. diameter rigid sphere? Yes/No</p> <p>If Yes, is there simultaneous contact between the boundary of the opening and both sides of the A section of the template? Yes/No</p> <p>If Yes, does the neck portion of the B section of the template completely enter the opening (passes 0.75in. or more beyond the points previously contacted by the A section of the template)? Yes/No</p> <p>If Yes, does its lower boundary slope downward less than 45° for the whole distance from the narrowest part of the opening the neck can reach to the part of the opening as per section 4.8.4? *Yes/ No/ NA</p>	NA	
5.8 Metal Beds- Frame and Fastenings:			
5.8.1- 5.8.1.1	<p>Number of cycle _10000_ / _10000_</p> <p>Number of loads per minute: __20_____ <i>(R: ≤24 loads per minute)</i></p> <p>Is there no separation of any attachments of the foundation support system to the end structure of the bed as per section 4.10? Yes</p>	P	

Eurofins MTS Consumer Product Testing Vietnam Ltd.

 Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
 Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 11 of 27
REVISED DATE: Mar. 08, 2023

Clause	Requirement	Rating	Notes
5.8.2	<p>Apply <u>298_N</u> force at each point of attachment of the foundation support system to the end structure.</p> <p>Is there no separation of any attachments of the foundation support system to the end structure of the bed as per section 4.10? Yes</p>	P	
5.9	<p>Are cross-members utilized? Yes</p> <p>If Yes, Number of cross-members per bed: Upper bunk bed <u>20</u> & Lower bunk bed _____ (R: <u>≥2</u>)</p> <p>If More than 2, does any gap(s) between adjacent cross-members or between the cross-members and the bed end structure permit complete passage of the wedge block? No</p> <p>If Yes, does the gap(s) also permit complete passage of the 9 in. diameter rigid sphere? Yes/No</p> <p><i>This requirement applies to both the upper and lower bunk foundation support systems.</i></p>	P	
5.10 Permanency of Labels and Warnings			
5.10.1- 5.10.2	<p>It is a Paper Label Label on the bed</p> <p>Is it a permanent label as tested per section 5.10.1 or 5.10.2? Yes</p>	P	
5.10.3	<p>Is the label attached by a seam? Yes/ No</p> <p>Does it detach when subjected to a 15-lbf. Pull force applied as per section 5.10.3? Yes/ No</p>	NA	
5.10.4	<p>Can the tape test defined in Test Method B, Cross -Cut Tape Test of Test Methods D 3359 apply on all the warnings label? Yes/ No</p> <p>Is the printing in the area tested legible or attached after being subjected to this test? Yes/ No</p>	NA	
5.10.4.4	<p>Shall the non-paper label during an attempt to remove it without the aid of tools or solvents, not be removed or not fit entirely within the small parts cylinder defined in 16 CFR 1501 if it can be removed? Yes/ No</p>	NA	
6 Marking and Labeling:			
6.1	<p>Each bunk bed set shall have label or marking to indicate the following: Name, City, State, & Zip code (1) of the manufacturer, distributor, or seller. Model number (2), the Month & Year (3) of manufacture</p>	P	(1): GIGACLOUD TECHNOLOGY(USA) INC 18961 ARENTH AVENUE, CITY OF INDUSTRY, CA, 91748 (2): MF294384 (3):02/2023
6.2	Warnings	--	--

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:

VIET NAM

REPORT NUMBER:

76123-020131 Revised 1

ISSUE DATE:

Feb. 21, 2023

PAGE:

12 of 27

REVISED DATE:

Mar. 08, 2023

Clause	Requirement	Rating	Notes									
6.2.1.1	<p>If the foundation is not an integral part of the bed structure, the warning label shown in either Fig. 10(a) or Fig. 10(b) shall be attached permanently to the inside of a bed end structure of the upper bunk in a location that cannot be covered by the bedding but that may be covered by the placement of a pillow.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> WARNING To help prevent serious or fatal injuries from entrapment or falls: <ul style="list-style-type: none"> Never allow a child under 6 years on upper bunk. Use only mattress which is 74"-75" long and 37½"-38½" wide on upper bunk. Ensure thickness of mattress and foundation combined does not exceed _____" and mattress is at least 5" below upper edge of guardrails. Use guardrails on both sides of upper bunk. Prohibit horseplay on or under bed(s). Prohibit more than one person on upper bunk. Use ladder for entering and leaving upper bunk. <p>STRANGULATION HAZARD — Never attach or hang items to any part of the bunk bed that are not designed for use with the bed; for example, but not limited to, hooks, belts, and jumpropes.</p> <p>DO NOT REMOVE THIS LABEL</p> </div> <div style="text-align: center;"> WARNING To help prevent serious or fatal injuries from entrapment or falls: <ul style="list-style-type: none"> Never allow a child under 6 years on upper bunk. Use only mattress meeting the following specifications on upper bunk: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Bed Type</th> <th>Length</th> <th>Width</th> </tr> </thead> <tbody> <tr> <td>Standard Length</td> <td>74"-75"</td> <td>37½"-38½"</td> </tr> <tr> <td>Extra Long</td> <td>79"-80"</td> <td>37½"-38½"</td> </tr> </tbody> </table> Ensure thickness of mattress and foundation combined does not exceed _____" and mattress is at least 5" below upper edge of guardrails. Use guardrails on both sides of upper bunk. Prohibit horseplay on or under bed(s). Prohibit more than one person on upper bunk. Use ladder for entering and leaving upper bunk. <p>STRANGULATION HAZARD — Never attach or hang items to any part of the bunk bed that are not designed for use with the bed; for example, but not limited to, hooks, belts, and jumpropes.</p> <p>DO NOT REMOVE THIS LABEL</p> </div> </div> <p>(a) (b)</p>	Bed Type	Length	Width	Standard Length	74"-75"	37½"-38½"	Extra Long	79"-80"	37½"-38½"	P	
Bed Type	Length	Width										
Standard Length	74"-75"	37½"-38½"										
Extra Long	79"-80"	37½"-38½"										
6.2.1.2	<p>If the foundation is an integral part of the bed structure, the warning label shown in either Fig. 10(c) or Fig. 10(d) shall be attached permanently to the inside of a bed end structure of the upper bunk in a location that cannot be covered by the bedding but that may be covered by the placement of a pillow.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> WARNING To help prevent serious or fatal injuries from entrapment or falls: <ul style="list-style-type: none"> Never allow a child under 6 years on upper bunk. Use only mattress which is 74"-75" long and 37½"-38½" wide on upper bunk. Ensure thickness of mattress does not exceed _____" and mattress is at least 5" below upper edge of guardrails. Use guardrails on both sides of upper bunk. Prohibit horseplay on or under bed(s). Prohibit more than one person on upper bunk. Use ladder for entering and leaving upper bunk. <p>STRANGULATION HAZARD — Never attach or hang items to any part of the bunk bed that are not designed for use with the bed; for example, but not limited to, hooks, belts, and jumpropes.</p> <p>DO NOT REMOVE THIS LABEL</p> </div> <div style="text-align: center;"> WARNING To help prevent serious or fatal injuries from entrapment or falls: <ul style="list-style-type: none"> Never allow a child under 6 years on upper bunk. Use only mattress meeting the following specifications on upper bunk: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Bed Type</th> <th>Length</th> <th>Width</th> </tr> </thead> <tbody> <tr> <td>Standard Length</td> <td>74"-75"</td> <td>37½"-38½"</td> </tr> <tr> <td>Extra Long</td> <td>79"-80"</td> <td>37½"-38½"</td> </tr> </tbody> </table> Ensure thickness of mattress does not exceed _____" and mattress is at least 5" below upper edge of guardrails. Use guardrails on both sides of upper bunk. Prohibit horseplay on or under bed(s). Prohibit more than one person on upper bunk. Use ladder for entering and leaving upper bunk. <p>STRANGULATION HAZARD — Never attach or hang items to any part of the bunk bed that are not designed for use with the bed; for example, but not limited to, hooks, belts, and jumpropes.</p> <p>DO NOT REMOVE THIS LABEL</p> </div> </div> <p>(c) (d)</p>	Bed Type	Length	Width	Standard Length	74"-75"	37½"-38½"	Extra Long	79"-80"	37½"-38½"	NA	
Bed Type	Length	Width										
Standard Length	74"-75"	37½"-38½"										
Extra Long	79"-80"	37½"-38½"										

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Eurofins MTS Consumer Product Testing Vietnam Ltd.
Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 13 of 27
REVISED DATE: Mar. 08, 2023

Clause	Requirement	Rating	Notes
6.2.2	<p>The height of the letters of the word "WARNING": <u>0.21</u> in. (R: >0.1875 in. (4.8 mm) and uppercase boldface type.)</p> <p>The height of the letters of the word "DO NOT REMOVE THIS LABEL": <u>0.14</u> in. (R: >0.125 in. (3.175mm) and uppercase boldface type.)</p> <p>The height of the words "To help prevent": <u>0.14</u> in. (R: >0.125 in. (3.175mm) and boldface type.)</p> <p>The height of the remainder of the text in warning statement: <u>0.14</u> in. (R: >0.125 in.(3.175mm))</p> <p>The label contains sizes appropriate to that mattress as defined in the ISPA Voluntary Dimensional Guideline for Bedding Products and Components. Yes</p> <p>The label is attached to the inside of a bed end structure of the upper bunk. Yes</p> <p>The label is not covered by the bedding. Yes (Exception: it may be covered by the placement of a pillow.)</p>	P	
6.2.3	<p>Do warnings, including applicable mattress dimensional specifications, appear on the carton containing bed ends on at least one face and one end? Yes</p> <p>The height of the letters: <u>in.</u> (R: >0.1875 in.(4.8mm))</p>	P	
6.3	<p>Do the permanent labels (section 6.1) meet the requirement of section 5.10? Yes</p> <p>Do warning labels (section 6.2.1) applied to the bed meet the requirement of section 5.10? Yes</p>	P	
7 Instructional Literature			
7.1	Is the instruction provided with the bed? Yes	P	
7.2	<p>Are all parts necessary to assemble the bunk bed set listed? Yes</p> <p>Are the tools necessary for the bunk bed assembly listed as well? Yes</p>	P	

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 14 of 27
REVISED DATE: Mar. 08, 2023

Clause	Requirement	Rating	Notes																		
7.3	<p>Does the assembly instruction containing detail diagram showing exactly how the bed should be assembled? Yes</p> <p>It contains the specific instructions pertaining to the following:</p> <table border="1"> <tr> <td>7.3.1</td><td>Bed end structures</td><td>Yes</td></tr> <tr> <td>7.3.2</td><td>Attachment of side rails</td><td>Yes</td></tr> <tr> <td>7.3.3</td><td>Installation of the mattress/foundation support system</td><td>Yes</td></tr> <tr> <td>7.3.4</td><td>Fit of upper bunk to lower bunk</td><td>Yes</td></tr> <tr> <td>7.3.5</td><td>Attachment of guardrail</td><td>Yes</td></tr> <tr> <td>7.3.6</td><td>Attachment of ladder</td><td>Yes</td></tr> </table>	7.3.1	Bed end structures	Yes	7.3.2	Attachment of side rails	Yes	7.3.3	Installation of the mattress/foundation support system	Yes	7.3.4	Fit of upper bunk to lower bunk	Yes	7.3.5	Attachment of guardrail	Yes	7.3.6	Attachment of ladder	Yes	P	
7.3.1	Bed end structures	Yes																			
7.3.2	Attachment of side rails	Yes																			
7.3.3	Installation of the mattress/foundation support system	Yes																			
7.3.4	Fit of upper bunk to lower bunk	Yes																			
7.3.5	Attachment of guardrail	Yes																			
7.3.6	Attachment of ladder	Yes																			
7.4	<p>Is the size of the intended mattress clearly stated? Yes</p> <p>*Conventional Bedding term: <u>other:</u> TWIN</p> <p>*Dimensions for finished mattress: <u>Upper bed: 74-75" (length) x 38-1/2" (width)</u></p> <p>Is the maximum thickness of the mattress that will ensure conformance to the guardrail provision of section 4.7.3 stated? Yes</p>	P																			
7.5	Is replacement parts information present? Yes	P																			
7.6	Does the instruction contain the Safety Warnings as per section 7.6.1-7.6.13? Yes	P																			
7.6.1	Follow the information on the warnings appearing on the upper bunk end structure and on the carton. Do not remove warning label from bed.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided																		
7.6.2	Always use the recommended size mattresses or mattress supports, or both, to help prevent the likelihood of entrapment or falls.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided																		
7.6.3	Surface of mattress must be at least 5 in. (127 mm) below the upper edge of guardrails.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided																		
7.6.4	Do not allow children under 6 years of age to use the upper bunk.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided																		
7.6.5	Periodically check and ensure that the guardrail, ladder, and other components are in their proper position, free from damage, and that all connectors are tight.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided																		
7.6.6	Do not allow horseplay on or under the bed and prohibit jumping on the bed.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided																		
7.6.7	Always use the ladder for entering and leaving the upper bunk.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided																		
7.6.8	Do not use substitute parts. Contact the manufacturer or dealer for replacement parts.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided																		

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
 Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:
VIET NAM
76123-020131 Revised 1
ISSUE DATE: Feb. 21, 2023
PAGE: 15 of 27
REVISED DATE: Mar. 08, 2023

Clause	Requirement	Rating	Notes
7.6.9	Use of a night light may provide added safety precaution for a child using the upper bunk.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided
7.6.10	Always use guardrails on both long sides of the upper bunk. If the bunk bed will be placed next to the wall, the guardrail that runs the full length of the bed should be placed against the wall to prevent entrapment between the bed and wall.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided
7.6.11	The use of water or sleep flotation mattresses is prohibited.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided
7.6.12	STRANGULATION HAZARD —Never attach or hang items to any part of the bunk bed that are not designed for use with the bed; for example, but not limited to, hooks, belts and jump ropes.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided
7.6.13	Keep these instructions for future reference.	P	<input checked="" type="checkbox"/> Provided <input type="checkbox"/> Not Provided

NOTE: P = Pass F = Fail NA = Not Applicable NR = Not Requested
 NT = Not Tested

Eurofins MTS Consumer Product Testing Vietnam Ltd.

 Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
 Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 16 of 27
REVISED DATE: Mar. 08, 2023

4. 16 CFR Part 1213 Safety Standard For Entrapment Hazards In Bunk Beds

Clause	Requirement	Rating	Notes
1213.3	Requirements	--	--
1213.3(a)	Guardrails	--	--
	Any bunk bed shall provide at least two guardrails, at least one on each side of the bed, for each bed having the underside of its foundation more than 30 inches (760 mm) from the floor.	P	
	One guardrail shall be continuous between each of the bed's end structures. "Continuous" means that any gap between the guardrail and end structure shall not exceed 0.22 inches (5.6mm) (so as to not cause a finger entrapment hazard for a child).	P	
	The other guardrail may terminate before reaching the bed's end structures, providing there is no more than 15 inches (380mm) between either end of the guardrail and the nearest bed end structures.	P	
	For bunk beds designed to have a ladder attached to one side of the bed, the continuous guardrail shall be on the other side of the bed.	P	
	Guardrails shall be attached so that they cannot be removed without either intentionally releasing a fastening device or applying forces sequentially in different directions.	P	
	The upper edge of the guardrails shall be no less than 5 inches (130 mm) above the top surface of the mattress when a mattress of the maximum thickness specified by the bed manufacturer's instructions is on the bed. <i>This requirement does not prohibit a wall-side guardrail that terminates in a quarter-circle bend and attaches to the side rail of the upper bunk foundation.</i>	P	
	With no mattress on the bed, there shall be no openings in the structure between the lower edge of the uppermost member of the guardrail and the underside of the upper bunk's foundation that would permit passage of the wedge block of this part when tested in accordance with the procedure at §1213.4(a).	P	

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 17 of 27
REVISED DATE: Mar. 08, 2023

Clause	Requirement	Rating	Notes				
1213.3(b)	<i>Bed end structures.</i>	--	--				
	The upper edge of the upper bunk end structures shall be at least 5 inches (130 mm) above the top surface of the mattress for at least 50 percent of the distance between the two posts at the head and foot of the upper bunk when a mattress and foundation of the maximum thickness specified by the manufacturer's instructions is on the bed.	P					
	With no mattress on the bed, there shall be no openings in the end structures above the foundation of the upper bunk that will permit the free passage of the wedge block when tested in accordance with the procedure at § 1213.4(b).	P					
	When tested in accordance with § 1213.4(c), there shall be no openings in the end structures between the underside of the foundation of the upper bunk and upper side of the foundation of the lower bunk that will permit the free passage of the wedge block, unless the openings are also large enough to permit the free passage of a 9 inch (230 mm) diameter rigid sphere.	NA					
	All portions of the boundary of any opening required by §§ 1213.4(c)(1) and (2) to be probed by the wedge block, and that permits free passage of a 9-inch diameter sphere, must conform to the neck entrapment requirements of § 1213.4(c)(3).	NA					
1213.5	Marking and labeling.	--	--				
1213.5(a)	There shall be a permanent label or marking on each bed stating the name and address (city, state, and zip code) of the manufacturer, distributor, or retailer; the model number; and the month and year of manufacture.	P					
1213.5(b)	<p>The following warning label shall be permanently attached to the inside of an upper bunk bed end structure in a location that cannot be covered by the bedding but that may be covered by the placement of a pillow.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; padding: 5px;">⚠ WARNING</td> </tr> <tr> <td style="padding: 5px;">To help prevent serious or fatal injuries from entrapment or falls:</td> </tr> <tr> <td style="padding: 5px;"> <ul style="list-style-type: none"> • Never allow a child under 6 years on upper bunk • Use only a mattress that is ___ inches long and ___ inches wide on upper bunk • Ensure thickness of mattress and foundation combined does not exceed ___ inches and that mattress surface is at least 5 inches below upper edge of guardrails </td> </tr> <tr> <td style="text-align: center; padding: 5px;">DO NOT REMOVE THIS LABEL</td> </tr> </table>	⚠ WARNING	To help prevent serious or fatal injuries from entrapment or falls:	<ul style="list-style-type: none"> • Never allow a child under 6 years on upper bunk • Use only a mattress that is ___ inches long and ___ inches wide on upper bunk • Ensure thickness of mattress and foundation combined does not exceed ___ inches and that mattress surface is at least 5 inches below upper edge of guardrails 	DO NOT REMOVE THIS LABEL	P	
⚠ WARNING							
To help prevent serious or fatal injuries from entrapment or falls:							
<ul style="list-style-type: none"> • Never allow a child under 6 years on upper bunk • Use only a mattress that is ___ inches long and ___ inches wide on upper bunk • Ensure thickness of mattress and foundation combined does not exceed ___ inches and that mattress surface is at least 5 inches below upper edge of guardrails 							
DO NOT REMOVE THIS LABEL							

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com



Modern Testing Services

TEST REPORT

LAB LOCATION:
REPORT NUMBER:

VIET NAM

76123-020131 Revised 1

ISSUE DATE:

Feb. 21, 2023

PAGE-1

18 of 27

REVISED DATE:

Mar. 08, 2023

Clause	Requirement	Rating	Notes
1213.6	<p>Instructions.</p> <p>Instructions shall accompany each bunk bed set, and shall include the following information.</p>	P	
1213.6(a)	<p>Size of mattress and foundation.</p> <p>The length and width of the intended mattress and foundation shall be clearly stated, either numerically or in conventional terms such as twin size, twin extra-long, etc. In addition, the maximum thickness of the mattress and foundation required for compliance with § 1213.3(a)(5) and (b)(1) shall be stated.</p>	P	
1213.6(b)	<p>Safety warnings</p> <p>The instructions shall provide the following safety warnings:</p>	P	
	Do not allow children under 6 years of age to use the upper bunk.	P	
	Use guardrails on both sides of the upper bunk.	P	
	<i>Prohibit horseplay on or under beds.</i>	P	
	Prohibit more than one person on upper bunk.	P	
	Use ladder for entering or leaving upper bunk.	P	
	If the bunk bed will be placed next to a wall, the guardrail that runs the full length of the bed should be placed against the wall to prevent entrapment between the bed and the wall.	P	
	<i>This applies only to bunk beds without two full-length guardrails.</i>		

NOTE:

P = Pass

F = Fail

NA = Not Applicable

NR = Not Requested

NT = Not Tested

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

ASIA | Hong Kong · Dongguan · Shanghai · Qingdao · Taipei · Seoul · Ho Chi Minh · Phnom Penh · Jakarta · Bangkok · Dhaka · Colombo · Lahore · Bangalore · Noida · Tirupur

AMERICA | Norwood (MA)

EUROPE | Leeds · Augsburg · Hamburg · Istanbul

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 19 of 27
REVISED DATE: Mar. 08, 2023

5. 16 CFR Part 1513-Requirements For Bunk Beds

Clause	Requirement	Rating	Notes
1513.3 Requirements.			
(a) Guardrails.			
(1)	Any bunk bed shall provide at least two guardrails, at least one on each side of the bed, for each bed having the underside of its foundation more than 30 inches (760 mm) from the floor.	P	
(2)	One guardrail shall be continuous between each of the bed's end structures. "Continuous" means that any gap between the guardrail and end structure shall not exceed 0.22 inches (5.6 mm) (so as to not cause a finger entrapment hazard for a child).	P	
(3)	The other guardrail may terminate before reaching the bed's end structures, providing there is no more than 15 inches (380 mm) between either end of the guardrail and the nearest bed end structure.	P	
(4)	For bunk beds designed to have a ladder attached to one side of the bed, the continuous guardrail shall be on the other side of the bed.	P	
(5)	Guardrails shall be attached so that they cannot be removed without either intentionally releasing a fastening device or applying forces sequentially in different directions.	P	
(6)	The upper edge of the guardrails shall be no less than 5 inches (130 mm) above the top surface of the mattress when a mattress of the maximum thickness specified by the manufacturer's instructions is on the bed. This requirement does not prohibit a wall-side guardrail that terminates in a quatercircle bend and attaches to the side rail of the upper bunk foundation.	P	
(7)	With no mattress on the bed, there shall be no openings in the structure between the lower edge of the uppermost member of the guardrail and the underside of the upper bunk's foundation that would permit passage of the wedge block shown in Figure 1 of this part when tested in accordance with the procedure at § 1513.4(a).	P	
(b) Bed end structures.			
(1)	The upper edge of the upper bunk end structures shall be at least 5 inches (130 mm) above the top surface of the mattress for at least 50 percent of the distance between the two posts at the head and foot of the upper bunk when a mattress and foundation of the maximum thickness specified by the manufacturer's instructions is on the bed.	P	
(2)	With no mattress on the bed, there shall be no openings in the rigid end structures above the foundation of the upper bunk that will permit the free passage of the wedge block shown in Figure 1 when tested in accordance with the procedure at § 1513.4(b).	P	
(3)	When tested in accordance with § 1513.4(c), there shall be no openings in the end structures between the underside of the foundation of the upper bunk and upper side of the foundation of the lower bunk that will permit the free passage of the wedge block shown in Figure 1, unless the openings are also large enough to permit the free passage of a 9-inch (230-mm) diameter rigid sphere.	NA	
(4)	All portions of the boundary of any opening required by §§ 1513.4(c)(1) and (2) to be probed by the wedge block of Figure 1, and that permits free passage of a 9-inch diameter sphere, must conform to the neck entrapment requirements of § 1513.4(c)(3).	NA	

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 20 of 27
REVISED DATE: Mar. 08, 2023

Clause	Requirement	Rating	Notes
1513.5 Marking and labeling			
(a)	There shall be a permanent label or marking on each bed stating the name and address (city, state, and zip code) of the manufacturer, distributor, or retailer; the model number; and the month and year of manufacture.	P	
(b)	<p>The following warning label shall be permanently attached to the inside of an upper bunk bed end structure in a location that cannot be covered by the bedding but that may be covered by the placement of a pillow.</p> <div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p style="text-align: center;">⚠ WARNING</p> <p>To help prevent serious or fatal injuries from entrapment or falls:</p> <ul style="list-style-type: none"> • Never allow a child under 6 years on upper bunk • Use only a mattress that is ___ inches long and ___ inches wide on upper bunk • Ensure thickness of mattress and foundation combined does not exceed ___ inches and that mattress surface is at least 5 inches below upper edge of guardrails <p style="text-align: center;">DO NOT REMOVE THIS LABEL</p> </div>	P	
1513.6 Instructions		Instructions shall accompany each bunk bed set, and shall include the following information.	
(a)	<p><i>Size of mattress and foundation.</i> The length and width of the intended mattress and foundation shall be clearly stated, either numerically or in conventional terms such as twin size, twin extra-long, etc. In addition, the maximum thickness of the mattress and foundation required for compliance with § 1513.3 (a)(5) and (b)(1) of this part shall be stated.</p>	P	
(b)	<p><i>Safety warnings.</i> The instructions shall provide the following safety warnings:</p>	--	--
(1)	Do not allow children under 6 years of age to use the upper bunk.	P	
(2)	Use guardrails on both sides of the upper bunk.	P	
(3)	Prohibit horseplay on or under beds.	P	
(4)	Prohibit more than one person on upper bunk.	P	
(5)	Use ladder for entering or leaving upper bunk.	P	
(6)	If the bunk bed will be placed next to a wall, the guardrail that runs the full length of the bed should be placed against the wall to prevent entrapment between the bed and the wall. (This applies only to bunk beds without two full-length guardrails.)	P	

NOTE: P = Pass F = Fail NA = Not Applicable NR = Not Requested
 NT = Not Tested

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
 Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:
VIET NAM
76123-020131 Revised 1
ISSUE DATE: Feb. 21, 2023
PAGE: 21 of 27
REVISED DATE: Mar. 08, 2023

6. ASTM F1148-22: Home playground Equipment

Section	Requirement	Result
8.2	Slides	P
8.2.1	Slide Requirement	--
8.2.1.1	A handrail shall be provided on all sides of the transition area (except on entrance and exit areas) that meet the enclosed opening requirements of 6.1. Slide transition areas larger than 200 in ² are considered platforms and shall comply with the requirements for guardrails and protective barriers found in 7.3. (1) All handrail bend radii shall be a minimum of 2 in. (50mm).	NA
8.2.1.2	The transition area at the top of a slide shall be at least 10 in. (250 mm) long and shall be at least as wide as the sliding surface. See Fig. A1.16, Fig. A1.31, and Fig. A1.32 illustrating sliding surfaces.	NA
8.2.1.3	With the exception of roller slides, the inclined sliding surface and the exit surface shall be a continuous surface as defined in 3.1.6. A continuous surface may be comprised of multiple components.	P
8.2.1.4	The slide shall have raised edges that project at least 1 in. (25 mm) above the slide surface when measured perpendicularly to that surface.	P
8.2.1.5	The slide shall have a reduced-gradient exit surface at least 6 in. (150 mm) in length; the reduced-gradient exit surface shall be at a minimum angle of 18° from the inclined sliding surface, and the exit surface shall be greater than 0°, but not more than 30° (0.52 rad), from horizontal. (1) Slides having an entrance height of 4.5 ft (1.4 m) or less and having an inclined angle of 30° or less from the horizontal are not subject to the reduced gradient requirement.	P
8.2.1.6	The end of the slide shall be less than or equal to 12 in. (300 mm) off the ground as measured from the sliding surface.	P
8.2.1.7	Slide exit edges shall be rounded or curved	P
8.2.1.8	Slides exceeding 54 in. height from platform to ground level shall have a side of not less than 2.5 in. (64 mm) above the slide bed commencing at a point on the slide 54 in. as measured vertically, from the ground and extending to the top platform on the slide.	NA
8.2.1.10	Slide Chute/Bedway Clearance Zones —A clear area, free of equipment, shall surround the slide chute/bedway. This area is defined by Fig. A1.32. Portions of slides containing hoods, roofs, or other devices to channel the user into a seated position, spiral slides and tube slides excepted. The clear area shall extend through the slide exit clearance zone as defined in 9.1.4.3. (1) Spiral slides with open chutes shall maintain a clear area 20 in. (508 mm) wide, when measured from the inside face of the sidewall along the outer edge of the slide for the entire length of the slide.	NA
8.2.2	Stability of Free-Standing Slides —Freestanding slides, when anchored in accordance with the instructions enclosed with the slide, shall be capable of supporting a sandbag weighing the 95th percentile weight of the maximum age user (see Table 3) completely hanging over the handrail at its highest point without any part of the slide being lifted from a level supporting surface.	NA
8.2.3	Roller Slides —There shall be no crush, shear, entrapment, nor catch points between the junctures caused by two or more components that could cause a contusion, laceration, abrasion, amputation, or fracture.	NA
8.2.3.1	A crush, shear, entrapment, or catch point is any point that will admit a 0.187 in. diameter neoprene rod at one or more positions, either between rollers or adjacent segments.	NA
11	Structural Integrity	P
11.1.4	Slides —A load of the 95th percentile weight of the maximum age users shall be applied simultaneously at specified locations on the slide.	P

Eurofins MTS Consumer Product Testing Vietnam Ltd.

 Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
 Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
VIET NAM
REPORT NUMBER:
76123-020131 Revised 1
ISSUE DATE:
Feb. 21, 2023
PAGE:
22 of 27
REVISED DATE:
Mar. 08, 2023

Section	Requirement	Result
6.3	Protrusions	P
6.3.4	Slides—Slides, including protective barriers and their method of attachment and transition areas, pose a greater risk of entanglement than other areas of play equipment. Therefore, the following requirements apply to slides and sliding devices.	P
6.3.4.1	Any accessible protrusion that allows the 3.00 in. (76 mm) protrusion gauge (see Fig. A1.11) to pass over it shall have no projection extending perpendicular from the initial surface greater than .125 in. (3 mm). The area that is subject to this requirement is outlined in Fig. A1.16. The outside surface of tunnel slides that are completely enclosed are not subject to the requirements of this section.	P
6.3.4.2	Slides shall be constructed in such a manner as to provide a smooth continuous sliding surface with no gaps or spaces that might create an entanglement hazard such as, but not limited to, the space created between sidewalls when two single slides are combined to create a double wide slide or the point where a hood attaches to the sidewalls of a slide. Roller slides are exempt from the requirements of this section.	P
6.3.5	No protrusion may terminate in a dimension greater than that of the base dimension (see Fig. A1.17). In the case of hardware as defined in 6.8, the base dimension shall be defined as the major dimension of the attachment nut or bolt head	P
6.3.6	Exclusions —Protrusions are exempt from the requirements of 6.3.2 and may be considered inaccessible if the protrusion cannot be placed within the 3.0 in. diameter test gauge (see Fig. A1.18).	NA
6.7	Holes and Slots —If a circular hole or slot in any rigid material with a thickness less than 0.375 in. (10 mm) is accessible and can admit a 0.25 in. (6 mm) +0.005 in./−0 (±0/−0.127 mm) diameter rod to a depth of 0.375 in. (10 mm) or greater, it shall also admit a 0.50 in. (13 mm) +0/−0.005 in. (±0/−0.127 mm) diameter rod. Chains and their method of attachment are exempt except as described in 8.1.7.2.	NA
6.8	Hardware:	P
6.8.1	Upon final assembly, bolt ends shall not protrude beyond the nuts greater than the diameter of the bolt when the nuts are tightened to a torque between 20 lbf·in. and 25 lbf·in. (2.3 N·m and 2.8 N·m).	P
6.8.2	Threaded bolt ends that are recessed such that the end of the bolt lies at or below a surrounding surface located within 1.0 in. (25 mm) +0/−0.05 in. (±0/−1.3 mm) of the centerline of the bolt are exempt from the requirements of 6.8.1 (see Fig. A1.19). Recessed threaded bolt ends that are free from hazardous sharp edges and burrs are exempt from the requirements of 6.8.3.	P
6.8.3	If the threaded ends of exposed bolts or rods protrude from adjacent surfaces in areas of normally expected play, or if the thread is not free of exposed hazardous sharp edges or burrs, or both, then the threaded ends shall be covered by smooth finish caps.	P
6.8.4	Any caps that are used shall be tight-fitting when installed in accordance with the manufacturer's instructions. They shall be subjected to a torque of 4 lbf·in. (0.45 N·m) ± 0.5 lbf·in. (0.056 N·m) and a tensile force of 15 lbf (67 N) ± 1.125 lbf (5 N). These components shall comply with the requirements of 16 CFR 1500.48, 1500.49, 1500.53 (e and f), and 1501.	P
6.8.5	Lock washers, self-locking nuts, or other locking means shall be provided for all bolts	P

P = Pass F = Fail NA = Not Applicable TT = Test Terminated due to earlier failure NC = Not Conducted
R = Refer to Comment Section
Eurofins MTS Consumer Product Testing Vietnam Ltd.

 Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
 Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:

VIET NAM

REPORT NUMBER:

76123-020131 Revised 1

ISSUE DATE:

Feb. 21, 2023

PAGE:

23 of 27

REVISED DATE:

Mar. 08, 2023

7. Sharp Point, Sharp Edges

TEST METHOD	TEST REQUIREMENT	RESULT
Hazardous sharp edges (16 CFR 1500.49)	There shall be no hazardous sharp edges as defined by 16 CFR 1500.49 before or after testing to this specification	PASS
Hazardous sharp point (16 CFR 1500.48)	There shall be no hazardous sharp points as defined by 16 CFR 1500.48 before or after testing to this specification	PASS

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 24 of 27
REVISED DATE: Mar. 08, 2023

EXHIBIT(S):

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 25 of 27
REVISED DATE: Mar. 08, 2023

Exhibit 7 	Exhibit 8
Exhibit 9 	Exhibit 10
Exhibit 11 	Exhibit 12
Exhibit 13 	Exhibit 14

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com

LAB LOCATION:
REPORT NUMBER:

VIET NAM
76123-020131 Revised 1

ISSUE DATE: Feb. 21, 2023
PAGE: 26 of 27
REVISED DATE: Mar. 08, 2023

Exhibit 15	Exhibit 16
<p>USE ONLY MATTRESS THAT IS 74"-75" LONG ,38.5" WIDE,6" - USE LADDER FOR ENTERING AND LEAVING UPPER BUNK. SURFACE IS AT LEAST 5" BELOW UPPER EDGE OF GUAR</p>	<p>⚠️ WARNING THICK ON UPPPER BED. - ENSURE THICKNESS OF MATTRESS DOES NOT EXCEED 6" AND THAT MATTRESS DRAILS.</p>
<p>Exhibit 17</p> <p>- PROHIBIT MORE THAN ONE PERSON ON UPPER BUNK. STRANGULATION HAZARD - NEVER ATTACH OR HANG ITEMS TO ANY PART OF THE BUNK BED THAT ARE NOT DESIGNED FOR USE WITH THE BED.</p>	<p>Exhibit 18</p> <p>WARNING ANGULATION HAZARD - NEVER ATTACH OR HANG ITEMS TO ANY PART OF THE BED. FOR EXAMPLE, BUT NOT LIMITED, HOOKS, BELTS AND JUMP ROPES -DO NOT REMOVE THIS LABEL-</p>
<p>Exhibit 19</p>	<p>Exhibit 20</p>
<p>Exhibit 21</p>	<p>/</p>

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mts-vietnam.com.vn Website: www.mts-global.com



Modern Testing Services

TEST REPORT

LAB LOCATION:

VIET NAM

REPORT NUMBER:

76123-020131 Revised 1

ISSUE DATE:

Feb. 21, 2023

PAGE:

27 of 27

REVISED DATE:

Mar. 08, 2023

NOTE:

If there is question or concern regarding the above results, please contact the appropriate lab person below:

Technical questions :

Primary Contact: Allen Hsu

Tel: +84-28-6289-6363 Ext: 127

Email: Allen.Hsu@cpt.eurofinsasia.com

Back-up Contact: Harry Vu

Tel: +84-28-6289-6363 Ext: 175

Email: Harry.Vu@cpt.eurofinsasia.com

Concerns About Billing and General Inquiries:

Primary Contact: Vincent Pham

Tel: +84-28-6289-6363 Ext: 114

Email: Vincent.Pham@cpt.eurofinsasia.com

Back-up Contact: Sophia Nguyen

Tel: +84-28-6289-6363 Ext: 123

Email: Wendy.Do@cpt.eurofinsasia.com

This test report is governed by the Terms and Conditions, available on request or attached to the end of this test report. Attention is especially drawn to the limitations of liability, indemnification and jurisdictional provisions defined therein. This report is issued strictly based on the testing of the samples submitted by you. The test results in this report refer only to the sample(s) actually tested and do not refer or be deemed to refer to any bulk production from which such sample(s) may be said to have been obtained. In the event that Eurofins MTS Consumer Product Testing (Vietnam) Co. Ltd ("ERF") was requested to survey and test any bulk production quantity of samples, ERF, in the absence of any contrary written instructions, performed random sampling of bulk production for testing purposes. Variations in the conditions under which samples are stored, transported, etc., may lead to variations in the test results. ERF cannot anticipate and shall not be held responsible for variations in test results that may be due to factors beyond ERF's control, such as, sample cross-contamination, evaporation of volatile substances due to storage temperature, humidity, etc. This report does not constitute a recommendation, actual or implied, for any specific course of action. Other than the expressed warranties made in the Terms and Conditions of the ERF Test Request Form, ERF makes no warranties or representations either express or implied with respect to this report. In no circumstances whatsoever shall ERF be liable for any consequential, special or incidental damages arising out of, or in connection with, this report. As per regulation of China Metrology Accreditation (CMA), a report without CMA accreditation logo will not serve as testimonial to the public for the purpose defined by CMA regulations.

Eurofins MTS Consumer Product Testing Vietnam Ltd.

Lot II-12, Street 19/5A, Tan Binh Industrial Park, Tay Thanh Ward, Tan Phu District, HCM City, Vietnam
Tel: (+84) 862896363 Fax: (+84) 862896262 Email: info@mtsvietnam.com.vn Website: www.mts-global.com