HAPE INTERNATIONAL (NINGBO) LTD
HAPPY ARTS&CRAFTS(NINGBO)CO.,LTD
9-27NANHAI ROAD, DAGANG INDUSTRIAL CITY, BEILUN, NINGBO, CHINA

Sample Description	:	4-in-1 Climb 'n' Slide Gym Set
Sample Quantity	:	2 PCS
Style / Item No.	:	E1222
Client Reference Information	:	E1222A
Country of Origin	:	CHIAN
Country of Destination	:	GLOBAL
Labeled Age Grading	:	2-6 YEARS
Requested Age Grading	:	2Y+
		**********
Source of Sample	:	Sent by client.
Age Group Applied in Testing	:	2 YEARS+
Sample Receiving Date	:	APR. 11, 2024
Resubmitted Sample Date	:	JUL. 27, 2024
Further Information Date	:	OCT. 11, 2024
Testing Period	:	APR. 11, 2024 TO OCT. 29, 2024

Test Requested	**Result**
ASTM F1148-22 Standard Consumer Safety Performance Specification for Home Playground Equipment	Pass

********** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) **********

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

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Jessie Zhou
Authorized Signatory

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Results :

ASTM F1148-22 Standard Consumer Safety Performance Specification for Home Playground Equipment

Scope

1. This consumer safety specification provides safety requirements for various types of home playground equipment intended for use by children aged from over eighteen months through 10 years. It further provides such requirements for swings intended specifically for toddlers. Different age limits for various requirements are found in this specification. These limits reflect the nature of the hazards and the expected mental or physical ability, or both, of the child to cope with the hazards.

Clause	Test Method & Test Requirement (Refer to standard ASTM F1148-22 Figs)	Rating
4	**Materials and Manufacture**	
4.1.1	Metals subject to structural degradation such as by rust or corrosion shall be painted, galvanized, or otherwise treated. Woods shall be naturally rot- and insect-resistant or treated to avoid such deterioration. Creosote, pentachlorophenol, tributyl tin oxide, chromated copper arsenate (CCA), and surface coatings that contain pesticides shall not be used for playground equipment. Wood treaters and playground equipment manufacturers shall practice technologies and procedures that minimize the level of dislodgeable toxin. Plastics and other materials that experience ultraviolet (UV) degradation shall be stabilized against ultraviolet light. **Remark: It is the vendor's responsibility for the conformity of this requirement.**	See Remark
4.1.2	Regardless of the material or the treatment process, the manufacturer shall ensure that the users of the playground equipment cannot ingest, inhale, or absorb any potential hazardous amounts of substances through body surfaces as a result of contact with the equipment. **Remark: It is the vendor's responsibility for the conformity of this requirement.**	See Remark
4.1.3	Lead in Paint All paints and finishes used on playground equipment shall be in accordance with 16 CFR 1303.	N/A
5	**General Requirements**	
5.1	Applicable to All Home Playground Equipment Playground equipment represented as complying with this voluntary consumer safety performance specification shall meet all applicable requirements specified herein. Anyone representing compliance with this consumer safety performance specification shall keep such essential records as are necessary to document his claim that the requirements within this consumer safety specification have been met.	Pass
5.2	Small Parts When installed in accordance with the manufacturer's instructions, equipment for children under 3 years of age shall meet the requirements of 16 CFR 1501.	Pass
6	**Performance Requirements**	
6.1	Head and Neck Entrapment Home playground equipment shall be designed and constructed so that when	Pass

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	assembled any accessible opening shall meet the following performance requirements to reduce the risk of accidental head or neck entrapment by either a head first or feet first entry into the opening. Openings between the ground and the bottom edge of the equipment (such as rails, platforms, steps, etc.) are exempt from this requirement as illustrated in Fig. A1.6.	
6.1.1	An opening can pass this test when tested in accordance with 6.1.1(1) in one of two ways: (1) the opening does not admit the torso probe when it is rotated to any orientation about its own axis, or (2) the opening admits the torso probe and also admits the head probe. An opening fails the test under the following conditions: The opening admits the torso probe but does not admit the head probe.	Pass
6.1.2	Completely bounded openings that are accessible must also meet requirements for angles as outlined in 6.2.	N/A
6.1.3	Nonrigid Completely Bounded Openings— A nonrigid opening such as, but not limited to, flexible nets, tarps, and plastic enclosures is considered accessible if a torso probe will penetrate the opening to a depth greater than or equal to 4 in.(100 mm) when tested in accordance with 6.1.1(1) (see Fig.A1.7). Flexible restraining systems on toddler swings are exempt from this requirement unless they form leg openings.	Pass
6.2	Acute Angles There shall be no acute angles, or group of acute angles, formed by two or more members in which the legs point upward from the apex so that the configuration approximates a “V” with an interior angle less than 55° (0.96 rad).	N/A
6.3	Protrusions When tested in accordance with 6.3.1 – 6.3.6.1, no protrusion shall extend beyond the face of the appropriate test gauge as defined in 6.3 and shown in Fig. A1.11 and Fig. A1.12.	Pass
6.3.1	Perform protrusion tests by successively placing each test gauge shown in Fig. A1.11 to determine if the protrusion extends beyond the face of the smallest gauge that can be successfully placed over the protrusion (for example of test gauge use, see Fig. A1.13).	Pass
6.3.2	Upright Protrusions Protrusions that fit within any of the gauges and that project upwards from a horizontal plane shall have no projection extending greater than 0.125 in. (3 mm) perpendicular to the plane of the initial surface (see Fig. A1.14).	Pass
6.3.3	Motion Rides Protrusions on the front and rear surfaces of suspended members of swinging elements and those on the interior surface of slides shall not protrude beyond the face of the test gauge shown in Fig. A1.12. Conduct the test with the suspended member in its rest position. Place the gauge shown in Fig. A1.12 over any protrusions on the front and rear surfaces of the	Pass

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	suspended member such that the axis of the hole is parallel to both the intended path of the suspended member and a horizontal plane.	
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:	Pass
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 0.125 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.	Pass
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.	Pass
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.	Pass
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).	See clause 6.3.2
6.4	Edges, Points, and Surfaces Following assembly of the unit in accordance with the instructions to be provided to the consumer, there shall be no sharp edges, points, or surfaces on any portion of the home playground equipment capable of inflicting a cut on a child.	Pass
6.4.1	All equipment shall be packaged in a manner that will preclude any sharp edges from being exposed during transit or storage.	Pass
6.5	Open Tubing All open tubing ends that are not resting on the ground, or otherwise covered, shall be provided with caps or plugs that have a smooth finish and are tight-fitting. They shall be subjected to a torque of 4 lbf-in. (0.45 N-m)±5 lbf-in. (0.056 N-m) and a force of 15 lbf (67 N) ±1.125 lbf (5 N) when tested in accordance with Title 16 CFR Section 1500.53(e and f).	N/A
6.6	Crush and Shear Points There shall be no crush or shear points caused by junctures of two components moving relative to each other that could cause a contusion, laceration, abrasion, amputation, or fracture. A crush or shear point is any point that allows a 0.187 in. (5 mm) diameter neoprene rod to enter at one or	N/A

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	more positions and entraps at one or more positions a .50 in. (13 mm) diameter neoprene rod. Entrapment shall mean that a force greater than 2 lbf (9 N) is required to pull out the rod. The neoprene rods shall have a hardness reading between 50 and 60 as determined by a Type A durometer in accordance with Test Method D 2240.	
6.7	Holes and Slots If a circular hole or slot in any rigid material with a thickness less than .375 in. (10 mm) is accessible and can admit a0 .25 in. (6 mm) +0.005 in./–0 (+0/–0.127 mm) diameter rod to a depth of0 .375 in. (10 mm) or greater, it shall also admit a0 .50 in. (13 mm) +0/–0.005 in. (+0/–0.127 mm) diameter rod. Chains are exempt except as described in 8.1.7.2.	N/A
6.8	Hardware	
6.8.1	Upon final assembly, bolt ends shall not protrude beyond the nuts more than the diameter of the bolt when the nuts are tightened to a torque between 20 and 25 lbf·in. (2.3 and 2.8 N·m)).	Pass
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.	See clause 6.8.1& 6.8.3
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.	N/A
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)±.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.	N/A
6.8.5	Lock washers, self-locking nuts, or other locking means shall be provided for all bolts.	Pass#
6.9	Hooks Open-ended hooks may be used for the uppermost suspension point of suspended elements provided that they have openings, or entry to an opening, in the area inside the boundaries represented by a line that is adjacent to the outer extremity of the uppermost portion of the hook, and parallel to the normal plane of suspension.	N/A
6.9.1	Hooks used for attachment of rides, or swing elements at any point other than at the uppermost suspension point, shall be designed to allow full closure, or be otherwise protected (for example, protective coverings). A hook is considered closed when the gap or space cannot admit a 0.04 in. (1 mm) +0/–0.005 in. (+0/–0.125 mm) feeler gauge.	N/A
6.10	Hand Gripping/Grasping Components	
6.10.1	Hand Gripping Components intended to be gripped by the hands to support body weight, such as rungs of horizontal ladders, climbing bars, handles, and	

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	the like, shall not exceed 1.55 in. (39.4 mm) in diameter or in the maximum cross-sectional dimension. When structural requirements cannot reasonably be met by the 1.55 in. diameter components, care must be exercised in selecting alternate components and designs, or both, to ensure that hand-gripping potential is not seriously impaired.	
6.10.2	Hand grasping components intended to be grasped by the hand to steady the user, such as a handrail, shall have a maximum diameter or width of 1.75 in. (44.5 mm) and a minimum graspable depth of 1.5 in. (38 mm) to allow the fingers to pass over the object to be grasped.	Pass
7	**Requirements for Access**	
7.1	Rung Ladders, Stepladders and Stairways	
7.1.1	Rungs, steps and stairs shall be evenly spaced within a tolerance of ±0.25 in. (6 mm) and horizontal within a tolerance of ±2°. The even spacing will include the distance between the top rung, step or stair and the top surface of the platform.	Pass
7.1.2	Rung ladders, stepladders, and stairways shall comply with the requirements found in Table 1.	Pass
7.2	Handrails	
7.2.1	Continuous handrails shall be provided on both sides of stairways and stepladders that have more than one tread. Handrails or other means of hand support shall be available for use at the beginning of the first step. The handrail shall be between 0.95 and 1.55 in. (24 and 39 mm) in diameter. The handrail height (the vertical distance between the top front edge of a step and the handrail above it) shall be between 22 and 38 in. (559 and 965 mm).	N/A
7.2.1.1	Stairways with a tread surface area of ≥200 $in.^2$ (1290 cm^2) must have a continuous handrail that complies with the requirements for guardrails and barriers in 7.3.	N/A
7.2.2	Open riser step ladders with a slope between 65° and 75° may be considered a climber and do not require handrails as long as a means of hand support is provide while climbing. Climbers and rung ladders must provide a means of hand support at the transition from climber to the platform. Open riser step ladders with a slope between 50° and <65° must meet the requirements of 7.2.3.	Pass
7.2.3	Rung ladders and step ladders with closed risers must provide hand gripping components or other means of continuous hand support beginning at the first step of a step ladder or first rung of a rung ladder that conform to the requirements of 6.10 hand gripping/grasping components.	Pass
7.2.3.1	Rung ladders shall have hand-gripping support above the platform to facilitate the transition from the ladder to the platform.	Pass
7.3	Guardrails and Protective Barriers Guardrails or protective barriers shall be provided on elevated surfaces such as platforms, landings, walkways, ramps and similar transitional play surfaces, in accordance with the following subsections. Guardrails and protective barriers shall be designed to discourage climbing and must have a top surface less than 3 in. (76 mm) wide or having greater than a 30° (0.52	Pass

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	rad) angle from horizontal.	
7.3.1	Elevated surfaces less than or equal to 30 in. (76 cm) above the surfacing do not require guardrails. Guardrails shall be provided on elevated surfaces greater than 30 in. (76 cm) but less than or equal to 48 in. (122 cm) above the surfacing. Protective barriers shall be provided on elevated surfaces greater than 48 in. (122 cm) above the surfacing.	N/A
7.3.2	Guardrails shall completely surround the elevated surface except for entrance and exit openings necessary for each event. Guardrail overall height shall be equal to or greater than 25 in. (635 mm). The maximum vertical opening between the lowermost member of a guardrail and the elevated surface it surrounds shall be 24 in. (610 mm). Openings between guardrail members or between a guardrail and the elevated surface it surrounds shall conform to the requirements addressing head and neck entrapment. If the top surface of the guardrail creates a completely bounded opening which presents a head and neck entrapment hazard, it is permissible to lower the guardrail to below the 25 in. (635 mm) height requirement to eliminate the head and neck entrapment hazard (see example in Fig. A1.22).	N/A
7.3.3	Elevated surfaces that are greater than 48 in. (1219 mm) above the surfacing but less than or equal to 72 in. (1829 mm) above the surfacing shall have protective barriers equal to or greater than 27 in. (686 mm) high. Elevated surfaces greater than 72 in. (1829 mm) above the surfacing shall have protective barriers equal to or greater than 33 in. (838 mm) high.	N/A
7.3.3.1	Protective barriers shall completely surround the elevated surface except for entrance and exit openings necessary for each event. Protective barriers shall be designed to minimize the likelihood of climbing. Openings within barriers or between the platform surface and lower edge of protective barriers shall preclude passage of the torso probe	N/A
8	**Equipment**	
8.1	Swings:	
8.1.1	To-fro swinging components such as, but not limited to, swings, trapeze bars, trapeze rings, and gliders shall not be attached to upper body components such as horizontal ladders.	N/A
8.1.2	Hangers All swing elements shall have hanger arrangements whose durability shall be determined by either of the dynamic cycling tests. At the completion of the test there shall be no loosening or structural failure of the hanger.	N/A
8.1.3	Minimum Ground Clearance When the assembled swing set is installed according to the manufacturer's instructions, the minimum clearance between the ground surface and the underside of any suspended unit shall be 8 in. (200 mm).	N/A
8.1.4	Suspended Swinging Elements:	
8.1.4.1	Suspended elements shall be smoothly finished with blunt or rounded edges and shall conform to 6.4.	N/A
8.1.4.2	Suspended elements shall not impart a peak acceleration in excess of 100 g (980 m/s^2) and shall have an HIC score not to exceed 500 when tested in	N/A

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	accordance with impact attenuation requirements in 8.1.11.	
8.1.5	Lawn Swings These swings shall be provided with platforms or footrests and seats meeting the criteria given in 8.1.5.1-8.1.5.4.	N/A
8.1.5.1	Seats intended for individual or dual passengers that include a backrest shall be designed so that any opening between the seat and the backrest shall prevent entry of the test fixture (see Fig. A1.24 and Fig. A1.25) when it is located at any point in the opening and a force of 45 lbf (200 N) 6 1.125 lbf (5 N) is applied to the fixture in a direction perpendicular to the entrance plane of the opening. The force shall be applied gradually and maintained for 5 min.	N/A
8.1.5.2	The platform or footrest shall extend no less than 1 in. (25 mm) behind the forward leading edge of the seat (see Dimension A, Fig. A1.24). This dimension shall be measured horizontally with the swing in its at-rest position. The space between any slats in the platform shall be no greater than 1.5 in. (38 mm).	N/A
8.1.5.3	The area of the platform that extends beyond the vertical supports of the swing shall be angled upwards not less than 30° from the horizontal (see Angle C, Fig. A1.24.)	N/A
8.1.5.4	The bottom edge of the seat skirt shall not be more than 10 in. (254 mm) above the top surface of the platform or footrest when the swing is in its at-rest position(see Dimension B, Fig. A1.24).)	N/A
8.1.6	Pendulum See-Saws Pendulum seesaws shall be provided with footrests. There shall be no openings with internal dimensions of which both the length and width are greater than 3.5 in. (89 mm) and less than 9 in. (229 mm). The spacing between the two support bars shall not decrease toward the seat supports. In the case of a pendulum seesaw designed with formed handles providing a greater opening, the minimum spacing below the formed handles shall be greater than 9 in. (229 mm).	N/A
8.1.7	Toddler Swings	
8.1.7.1	Restraining System Toddler swings shall have a child restraining system. Fully enclosed flexible bucket seats are exempt from this requirement. Toddler swings shall be equipped with a crotch restraint. A crotch restraint designed to work with a lap belt shall be designed such that its use is mandatory when the restraint system is in use.	N/A
8.1.7.2	Chains Chains on swing seats that support the weight of a child, intended for children 36 months or less in age, shall be shielded if the chain is accessible and if a 0.19 in. (4.8 mm) +0/–0.005 in. (+0/–0.127 mm) diameter rod can be inserted between two links, as in Fig. A1.26, with the chain in a slack configuration. A chain is considered accessible when it is less than or equal to 33 in. (840 mm) from the top of seating surface.	N/A
8.1.7.3	Toddler Swing Stability Toddler swings shall remain stable when tested in accordance with the	N/A

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	stability test method in 8.1.7.5. A swing is considered unstable and fails this requirement if, during any of the 6 swing attempts, the pendulum test apparatus (see Fig. A1.27) tips or falls forward or backward and causes the horizontal reference line of the toddler swing to hang at an angle greater than 30° (0.52 rad) from its original position (see Fig. A1.28).	
8.1.8	Swing Set Stability With the swing set assembled in accordance with the manufacturers instructions, and installed with a 5° (0.087 rad) downward slope in the same direction as the swinging elements, the swing set shall remain upright when a weight equal to the 95th percentile weight for the maximum age user (see Table 3) is placed in the first two positions of the swing set and a weight equal to the 50th percentile weight is placed in all remaining positions that can be occupied by a child, and the swinging elements are swung freely in unison through the angles as specified in Table 2.	N/A
8.1.9	Spacing Between Adjacent Swing Elements	
8.1.9.1	Swing sets containing adjacent swing elements shall be designed so that there is a minimum of 8 in. (205 mm) separating elements that are capable of limited lateral motion (where two or more chains, ropes, or poles are used for suspension). The outermost lateral extremities of the swinging elements shall govern the measurement of separation;	N/A
8.1.9.2	Swing elements that are intended to have unlimited lateral motion such as, but not limited to, a rotating swing or disc swing shall not occupy a swing bay with any other swinging element. There shall be a minimum separation of 15 in. (381 mm) between the outermost extremity of the swinging element and the support structure, as measured in a vertical plane from the outermost extremity from the top bar to the protective surface.	N/A
8.1.9.3	Lateral Stability of Swing Elements All to-fro swings, belt type or rigid, shall have a minimum distance between suspension points as calculated from the following formula: $A = 0.04(H) + B$ where: A = the center to center distance between uppermost suspension points of the swing assembly, B = the center to center distance between the swing seat attachment points, and H = the distance between the uppermost suspension point and the protective surfacing.	N/A
8.1.10	Spacing Between Swing Elements and Stationary Frame Members	
8.1.10.1	Occupant Enclosed Elements with two or more laterally spaced supports where supports are on both sides of the occupant (for example, suspended chain or rope swings and tubularly suspended lawn swings). Minimum spacing between the outer extremity of the swing element and stationary members shall be 7 in. (180 mm) when measured at a height of 28 in. (710 mm) above the seating surface (see Dimension C in Fig. A1.29).	N/A

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8.1.10.2	Occupant-Exposed Rides Examples are: the pendulum seesaw, horse rides, and others where the suspension system is in line with the occupant. Minimum spacing from stationary members shall be 16 in. (405 mm) as measured from the center of the seating surface at a height of 22 in. (560 mm) above the seating surface (see Dimension D in Fig. A1.29).	N/A
8.1.10.3	Occupant-Exposed Single Suspension Examples are: suspended ropes or poles. Minimum spacing from stationary members shall be 15 in. (380 mm) to a height of 53 in. (1350 mm) above ground level (see Dimension E in Fig. A1.29).	N/A
8.1.10.4	Free Swinging Rings The distance between the protective surface and the lowest portion of the ring may not be less than 53 in. (1350 mm). The distance from the outermost extremity of the ring to an adjacent swing or support structure shall be a minimum of 8 in. (205 mm) (see Fig. A1.29).	N/A
8.2	Slides	
8.2.1	Slide Requirements	
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 (1290 cm^2) are considered platforms and shall comply with the requirements for guardrails and protective barriers found in 7.3. All handrail bend radii shall be a minimum of 2 in. (50 mm).	Pass
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.	Pass
8.2.1.3	With the exception of roller slides (see 8.2.3), 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.	Pass
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.	Pass
8.2.1.5	The slide shall have a reduced-gradient exit surface at least 6 in. (152 mm) in length; the reduced-gradient exit surface shall be at a minimum angle of 18° (0.31 rad) from the inclined sliding surface, and the exit surface shall be greater than 0°, but less than 30° (0.52 rad), from horizontal. Slides having an entrance height of 54 in. (1372 mm) or less and having an inclined angle of 30° (0.52 rad) or less from the horizontal are not subject to the reduced gradient requirement.	N/A
8.2.1.6	The end of the slide shall be no more than 12 in.(300 mm) off the ground as measured from the sliding surface.	Pass
8.2.1.7	Slide exit edges shall be rounded or curved.	Pass
8.2.1.8	Slides exceeding 54 in. (1372 mm) 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 greater than 54 in. (1372 mm) as measured vertically, from the ground and extending to the top platform on the	N/A

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Clause	Test Method & Test Requirement (Refer to standard ASTM F1148-22 Figs)	Rating
	slide.	
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 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. 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.	N/A
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.	N/A
8.2.3	Roller Slides There shall be no pinch, 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. 8.2.3.1 A crush, shear, entrapment, or catch point is any point that will admit a .187 in. diameter neoprene rod at one or more positions, either between rollers or adjacent segments	N/A
8.3	Merry-Go-Rounds No stationary members of a merry-go-round device that are accessible to the child under normal conditions of use and that present an obstruction to the limbs of the user shall be located within the zone illustrated in Fig. A1.33 (for example, stationary legs within the excluded zone are not acceptable, but a single center pedestal lying within the excluded zone that is free of projections is acceptable).	N/A
8.4	Ropes A suspended climbing rope, chain, or cable shall be secured at both ends to prevent the rope, chain, or cable from being looped back on itself creating a loop with an interior perimeter of 5 in. (127 mm). A rope, chain, or cable that is used to support a swing seat is exempt.	N/A
9	**Equipment Layout**	
9.1	**Play Structure Use Zone**	
9.1.1	There shall be a use zone for each play structure which shall consist of obstacle-free surfacing that conforms to Specification F1292 appropriate for the fall height of the equipment. The dimensions and configuration of the use zone shall be dependent upon the type of play equipment, as specified in 9.1.2-9.1.5. Use zones of certain types of equipment may overlap unless otherwise specified.	Pass
9.1.2	Minimum Use Zone	N/A

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Clause	Test Method & Test Requirement (Refer to standard ASTM F1148-22 Figs)	Rating
	The minimum use zone for play equipment shall extend no less than 72in.(1829mm) from all sides of the play structure.	
9.1.3	**Swings**	
9.1.3.1	To-Fro Swings The use zone to the front and to the rear of to-fro swings shall be a minimum distance of 2X on a line extending 90°(1.57 rad) both front and rear from the longitudinal direction of the suspending beam, where X equals the vertical distance from the top of the protective surfacing to the pivot point of the swing. The total horizontal distance from the front to the rear of the use zone shall be not less than 4X (See Fig.A1.34). (1) No component of the attached play structure or separate play structure shall occupy or exit into the ground level protective surfacing area of the front-to -rear use zone of a to-fro swing. (2) The use zone width for to-fro swings shall be at least as wide as the spacing between swing elements and stationary member as show in Fig.A1.29. (3) The use zone surrounding the support structure of to-fro swings shall extend equal to or greater than 72in (1829mm) in all directions from the structure (see Fig.A1.34). The use zone of the supporting structure may overlap other use zones. (4) The front to rear use zone of a trapeze bar or rings, or both, shall be Z+72 in.(1829mm), where Z equals the distance from the pivot point to the lowest portion of the swinging component.	N/A
9.1.3.2	Swings Capable of Unlimited Lateral Motion (see Fig.A1.34)	N/A
9.1.4	**Slide (see Fig.A1.34)**	
9.1.4.1	The use zone around the steps or ladder, platform, and chute or slide bed of straight, wavy, and spiral slides shall conform to the minimum use zone requirements for play equipment found in 9.1.2	Pass
9.1.4.2	The use zone at the lower exit end of the chute or slide bed shall extend in the direction of the descent a horizontal distance equal to or greater than 72 in. (1829mm).	Pass
9.1.4.3	Slide Exit Clearance Zone A clear zone, free of equipment, shall extend from the end of the slide to the perimeter of the slide use zone, this area shall have a width as shown in Fig.A1.34. Slide exit clearance zones for two or more slides may overlap if their sliding paths are parallel. Merging slides with converging paths of travel shall not have overlapping clearance zones as shown in Fig.A1.32 and Fig.A1.34. (1) Exception: The slide itself may encroach into slide exit clearance zone (for example, spiral slides).	Pass
9.1.4.4	The clearance area of a slide exit use zone may not overlap the motion use zone of a to-fro or rotating swing.	Pass
9.1.5	**Composite Play Structures**	

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Clause	Test Method & Test Requirement (Refer to standard ASTM F1148-22 Figs)	Rating
9.1.5.1	The boundary of the use zone for a composite play structure shall be composed of those use zones that have been established for each individual play structure that, when joined together, comprise the composite play structure.	N/A
9.1.5.2	It is impractical to identify and establish assembled use zone standards for all possible configurations of a composite play structure. Therefore, the professional judgment of play equipment manufacturers, designers, and owners shall be used when designing a modular composite play structure to eliminate hazards created by conflicts in circulation use patterns or close proximity of adjacent components, or both.	N/A
10	**Installation**	
10.1	Instructions and Information The installation instructions and information shall state the following: 10.1.1 Place the equipment on level ground, not less than 6 ft (1.8 m) from any structure or obstruction such as a fence, garage, house, overhanging branches, laundry lines, or electrical wires. 10.1.2 Do not install home playground equipment over concrete, asphalt, packed earth, grass, carpet, or any other hard surface. A fall onto a hard surface can result in serious injury or death to the equipment user. 10.1.3 Equipment that is required by the manufacturer to be anchored, either in concrete or by ground anchors not provided with the equipment shall have a statement informing the consumer that the product must be anchored and that the anchors are sold separately. 10.1.4 When the equipment is shipped other than completely assembled, assembly instructions shall be provided including schematic drawings or renderings which, when followed, will enable an unskilled layman to correctly assemble the equipment and to avoid errors that could result in unsafe assembly. 10.1.5 Full-size diagrams of bolts, nuts, and washers and a list and description of all tools required shall be incorporated into the instructions. Lock nuts shall be clearly identified. Cautionary statements shall be included that recommend tightening bolts securely. There shall be instructions advising the owner to tighten the nuts on bolts flush to the tube (or member) and that caps which go over the exposed bolts shall be put on snug to the nut. 10.1.6 To prevent serious injury, cautionary statements shall be included which warn that children must not use the equipment until properly installed.	Pass
11	**Structural Integrity**	
11.1	The tests specified in 11.1.1 – 11.1.9 shall be performed on units assembled in accordance with the installation instructions enclosed with the equipment. There shall be no loosening, instability of the equipment, or structural failure[6] of any component or assembly during or immediately upon completion of these tests. Where it is specified that loads on structural members shall be applied through a 3.5 in. (89 mm) ± .5 in. (13 mm) long wood block, the block	Pass

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Clause	Test Method & Test Requirement (Refer to standard ASTM F1148-22 Figs)	Rating
	shall have a width of at least the width of the structural member and it shall be fabricated from lumber with a minimum thickness of .75 in. (19 mm) (see Tables 3 and 4). Where the geometry being tested is either too small or not flat, a loading strap 2 in. (51 mm) wide may be used.	
11.1.1	Handholds, Footholds, and Horizontal Supporting Members Rungs, steps, handles, climbing rocks, and other horizontal supporting members 24 in. (610 mm) or less in length, except turnbars and footrests, shall be capable of sustaining a vertical load (gradually applied) of 3 times the 95th percentile weight of the maximum age user applied for 5 min to a 3.5 in. (89 mm) long wood block resting on the center of the member. Turnbars shall be capable of sustaining a vertical load (gradually applied) of 3 times the 95th percentile weight of the maximum age user applied for 5 min to two 3.5 in. (89 mm) long wood blocks. The centerline of the blocks shall be resting at the ⅓ and the other at the ⅔ points between the ends of the turnbar. Footrests shall be capable of sustaining a vertical load (gradually applied) of 1.5 times the 95th percentile weight of the maximum age user applied for 5 min to a 3.5 in. (89 mm) long wood block at the center of one (or the other) footrest. Horizontal members greater than 24 in. (610 mm) in length, except turnbars, shall be capable of sustaining for 5 min a vertical load of 4 times the 95th percentile weight of the maximum age user gradually applied to two 3.5 in. (89 mm) long wood blocks. The centerline of the blocks shall be resting at the ⅓ and the other at the ⅔ points between the ends of the horizontal member. The load (or loads) shall be applied to one member at a time, unless otherwise specified for the particular equipment.	Pass
11.1.2	Top Support Bar The top support bar of any swing set shall be loaded with a total load applied vertically, without shock, and the total load shall remain for 5 min. This total load shall be the sum of the following loads, as applicable:	N/A
11.1.2.1	For swings, ropes, and poles, a load of 1.5 times the 95th percentile weight of the maximum age user for each position normally occupied by a child at play.	N/A
11.1.2.2	For pendulum seesaws, a load of 1.2 times the 95th percentile weight of the maximum age user for each position normally occupied by a child at play.	N/A
11.1.2.3	For multiple-occupancy swings, a load of 1.1 times the 95th percentile weight of the maximum age user for each position normally occupied by a child at play.	N/A
11.1.3	Individual Suspended Units Individual suspended units shall be tested one at a time, as indicated in Table 4, without evidence of structural failure to the unit or its supporting system. The loads shall be gradually applied and each unit shall be loaded for 5 min.	N/A
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.	Pass

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11.1.5	Rockers A load of 1.6 times the 95th percentile weight of the maximum age user shall be applied vertically, without shock, to each position that would normally be occupied by a child at play, and all the loads shall remain in position simultaneously for 5 min.	N/A
11.1.6	Merry-Go-Rounds A load of 1.5 times the 95th percentile weight of the maximum age user shall be applied vertically, without shock, to each position that would normally be occupied by a child at play, and all the loads shall remain in position simultaneously for 5 min.	N/A
11.1.7	Climbing Towers/Jungle Gyms A total load of 7.5 times the 95th percentile weight of the maximum age user shall be divided and applied in five equal segments. These five loads shall be applied in the worst possible configuration (that is, in the positions that will most likely cause failure or instability, or both, of the climbing tower or jungle gym). The loads shall be applied by loading horizontal members using 3.5 in. (89 mm) long wood blocks in the center of the member, with the loads remaining simultaneously for 5 min.	N/A
11.1.8	Platforms A platform shall be loaded with a total load applied vertically without shock, and the total load shall remain for 5 min. For the purpose of applying the load, the platform shall be divided into four equal area quadrants. The total load shall be located in equal portions, in the center of each quadrant and at the center point of the platform, a total of 5 points.	Pass
11.1.9	Climbing Components Components and surfaces intended for climbing shall be loaded by hanging or placing weights, with a total load applied vertically without shock. Total load shall remain for 5 min.	Pass
12	**Maintenance Instructions**	
12.1	The maintenance instructions shall include the checklist as appropriate for specific equipment.	Pass
12.2	Disposal Instructions There shall be instructions advising the owner to disassemble and dispose of the playground equipment in such a way that no unreasonable hazards will exist at the time the playground equipment is discarded.	Pass
13	**Labeling and Signage**	
13.1	Each whole unit of playground equipment such as a completed play unit, accessory toddler swing or slide shall be permanently marked in a conspicuous location with the name and address (city, state, and zip code) of the manufacturer, distributor, or seller.	Pass
13.1.1	Manufacturer shall provide a warning, either on the product or with the product for the owner to install. This can be a label, sign, or molded into the product. The information shall alert users and supervising adults of the following hazards	Pass
13.1.1.1	Risk of serious head injury or death due to falls from equipment placed over	Pass

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	hard surfaces.	
13.1.1.2	Risk of using helmets and other items that can wrap around a child's neck, become entangled or entrapped by the equipment, and lead to strangulation or death.	N/A
13.2	The following information, or equivalent, shall be permanently and prominently conspicuously displayed on the product in all capital letters: **THIS PRODUCT IS INTENDED FOR USE BY CHILDREN FROM AGES ____ TO ____.**	Pass
13.3	Toddler Swings shall have the following information permanently and prominently displayed: (1) Information requiring adult supervision. (2) If a restraint system is provided, instructions to always use the restraint system should be displayed	N/A
13.4	Signs or labels shall be installed or molded in by manufacturer or installed by owner with the following requirements:	Pass
13.4.1	Signs or labels are readily visible to the intended user and alert the user to the potential hazard in time to take appropriate action.	Pass
13.4.2	Owner installed signs or labels; manufacturer shall provide written instruction to meet requirements of 13.4.1.	Pass
13.4.3	Warning labels shall conform to ANSI Z535.4.	Pass
14	**Information Signage and Labels**	
14.1	Information on Manufacturer or Distributor The instructions shall carry in a prominent place the name and address of the manufacturer or distributor, and the model number of the playground equipment. Also, there shall be an instruction advising the owner to save this instruction and information sheet in the event that the manufacturer has to be contacted.	Pass
14.2	Information on Playground Surfacing Materials	
14.2.1	The instructions shall include the manufacturers determination of maximum fall height for the product.	Pass
14.2.2	Maximum fall height for the product is determined as follows: (1) Swings = pivot point, (2) Elevated platforms with guardrails = top surface of the guardrail, (3) Elevated platforms with protective barriers = the height of the platform, (4) Climbers and horizontal ladders = top surface of the component, and (5) Rockers and seesaws = maximum height of the designated play surface normally occupied by a user.	Pass
14.2.3	The instructions shall also include the information found in Section 4 of the United States Consumer Product Safety Commission's (USCPSC) Outdoor Home Playground Safety Handbook or specific surfacing guidelines for the product consistent with the USCPSC Handbook. A copy of this section may be found in Appendix X2.	Pass
14.3	Operating Instructions The operating instructions shall include the required information, if applicable.	Pass
14.4	The following warning statements shall appear in the instruction manual	N/A

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	concerning use of two- or four-passenger lawn swings that have an opening between the seat and the back surfaces: **WARNING:** Lawn swings are designed for use by children two years of age and older. The use by children under the age of two can result in entrapment between the seat and back rest because the child's body may pass through the opening, causing entrapment of the child's head. Such entrapment may result in strangulation. NEVER place children in a rearward facing position or with legs between the seat and backrest.	

Note:
N/A means not applicable
The item with # means it has been retested.

Remark:
1. Since the data and / or information above division line of front page is provided by the applicant, the relevant results or conclusions of this report are only made for these data and / or information, SGS shall not be responsible for the authenticity and integrity of such data and information and the validity of the results and / or conclusions arising therefrom. Testing results only apply to the sample as received.
2. The declaration of conformity is based on acceptance limits chosen based on simple acceptance (w = 0, AL =TL).
   Statements of conformity are reported as:
   Passed - The measured values were observed in tolerance at the points tested.
   Failed - One or more measured values were observed out of tolerance at the points tested.

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Sample Photo:

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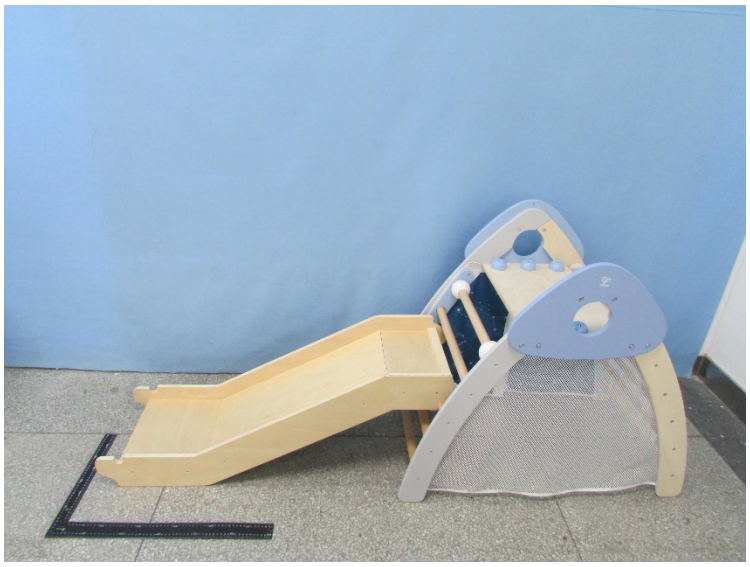

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