play&park structures®
A PLAYCORE Company

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Spring Hills Elementary
Drawing 880-143322A

SuperMax Specifications

General System Specifications:

SuperMax features 5" O.D. uprights with a high-strength aluminum alloy clamp fastening system finished with a polyester powder-coat. All uprights shall receive factory installed aluminum post caps and will ship with labels for manufacturer identification.

All decks and components shall connect using the aluminum alloy clamping system. All climbing attachments shall include a 15" wide deck entry archway to control deck access to one child at a time and help prevent inadvertent falls.

Manufacturer shall offer the following warranties on the materials and components of its system:

- Lifetime limited warranty on support posts (uprights)
- 15-Year limited warranty on punched steel decks, pipes, rails, loops and rungs
- 15-Year limited warranty on rotationally molded polyethylene components
- Lifetime limited warranty on all hardware

Manufacturer shall be ISO 9001/2000 certified

Manufacturer shall show IPEMA certification of compliance for each component that the product conforms with the requirements of ASTM F1487-01.

General Specifications of Materials

Uprights, Aluminum
The posts shall be 5"outside diameter tubing with an 1/8" minimum wall thickness. The material shall be extruded from 6005-T5 seamless aluminum alloy conforming to ASTM-B-221. Minimum yield strength shall be 35,000 psi and minimum tensile strength shall be 38,000 psi. All upright posts shall be coated with a custom formula TGIC polyester powder coating in conformance with the specifications outlined herein.

Polyester Powder-Coating Process
Powder-coat shall be an electrostatically applied custom formula of TGIC polyester powder. All components will be free of sharp edges and excess weld spatter and shall be cleaned in a four stage solvent/zirconium based bath, as a rust inhibitor, and a sealer to prevent flash rusting before coating. The coating shall have a super tough finish with maximum exterior durability and will have superior adhesion characteristics. Typical characteristics are: 3.0 - 5.0 mil thickness and oven cured between 375 to 425 degrees Fahrenheit. Pencil Hardness H (ASTM D-3363), Impact (ASTM D-2794-69), Wedge Bend (ASTM D-522-68), Adhesion (Cross Hatch ASTM D-3359 & Knife Scratch ASTM D-2197), Environmental (Stain Resistance ASTM D-1308, Humidity ASTM D 2247 - 87, Salt Spray ASTM B-117 & Fadometer 300 hrs with no loss of gloss), Oven-bake Stability 200% at 350 degrees Fahrenheit for 10 minutes.

Hardware
All nuts, bolts, and washers, with exceptions noted, shall be 3/8" diameter 18-8 stainless steel in varying lengths, with a vandal-resistant hex-pinned head configuration and factory-applied locking patch. When allowed a 72-hour cure time, the locking patch will prevent the bolt from loosening without at least 4 times the installation torque. Play & Park Structures will supply the special tool required to turn vandal-resistant hardware with each shipment. 1/2" diameter Ramp and Arch Bridge connecting hardware shall be Grade 5 zinc-plated, and 3/8" Clatter Bridge security bolts shall be Grade 8 hardened and zinc-plated.

Deck Components

Kickplates
Kickplate is cut from galvanneal sheet metal with (8) 7/16" x 1" slotted holes punched to coincide with deck flange holes. Corners are rounded, edges are ground smooth, and receives a baked-on polyester powder-coated finish after fabrication.

Rotomolded Components

Curvy Canopy
Roof shall be a single piece rotationally molded from an extremely durable low-density polyethylene with ultraviolet (UV) light stabilizers and color molded in. This material complies with ASTM-D-1248, Type 2, Class A, and Federal Specification LP-390C, Type 1, Class M, Grade 2, Category 3, and has a minimum 3/16" wall thickness.

General Specifications of Materials

Hardware
All nuts, bolts, and washers, with exceptions noted, shall be 3/8" diameter 18-8 stainless steel in varying lengths, with a vandal-resistant hex-pinned head configuration and factory-applied locking patch. When allowed a 72-hour cure time, the locking patch will prevent the bolt from loosening without at least 4 times the installation torque. Play & Park Structures will supply the special tool required to turn vandal-resistant hardware with each shipment. 1/2" diameter Ramp and Arch Bridge connecting hardware shall be Grade 5 zinc-plated, and 3/8" Clatter Bridge security bolts shall be Grade 8 hardened and zinc-plated.

Rotationally Molded Plastics
All Rotationally Molded Products are manufactured from linear low-density polyethylene UV-stabilized color and an anti-static compound additive. The tensile strength of this material is to be 2500 PSI as defined by ASTM D638. The typical wall thickness will be .250" (¼"). All rotationally molded products shall meet or exceed the following specifications: ASTM D-1248, type 2, class A and Federal specification LP-390C, type 1, class M, grade 2, category 3; Density (ASTM D- 1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790); Heat Distortion (ASTM-648); Low Temperature Impact (ARM-STD). All solid plastic panels are manufactured from high-density polyethylene. All solid plastic panels shall meet or exceed the following specifications: Density (ASTM D- 1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790).

Deck Components

Return Step
Return Step
The Return Step shall be made from 12 gauge punched steel with a protective p&o finish in conformance with the specifications outlined herein. The Return Steps shall be a one-piece welded assembly finished with the matte PVC coating per the specifications herein. Support legs shall be fabricated from 1-5/16" O.D. x .083" (14 gauge) wall galvanized steel tubing. Support Legs shall be all-welded assemblies and shall be coated after fabrication with a custom formula of TGIC polyester powder in conformance with the specifications outlined herein.

General Specifications of Materials

Plastisol Coating
All metal deck platforms, steps, bridge planks, ramps, kickplates, and chains are plastisol-coated. Each part is chemically washed and completely submerged in a special heat-activated primer and allowed to dry. Parts are then pre-heated and immersed in liquid poly-vinyl-chloride (plastisol). The PVC coating shall have a typical thickness of .080" to .120", and a hardness of Shore A 83 +/-5 normal durometer range. This material is classed as "Self Extinguishing", meets or exceeds automotive specifications NVSS302, and contains ultraviolet inhibitors to help prolong the life of the coating. Standard color is brown, with optional colors available. The following characteristics apply:

Tensile Strength - 2,800 psi
Elongation - 290 %
Tear Strength - 420 lbs/in

Polyester Powder-Coating Process
Powder-coat shall be an electrostatically applied custom formula of TGIC polyester powder. All components will be free of sharp edges and excess weld spatter and shall be cleaned in a four stage solvent/zirconium based bath, as a rust inhibitor, and a sealer to prevent flash rusting before coating. The coating shall have a super tough finish with maximum exterior durability and will have superior adhesion characteristics. Typical characteristics are: 3.0 - 5.0 mil thickness and oven cured between 375 to 425 degrees Fahrenheit. Pencil Hardness H (ASTM D-3363), Impact (ASTM D-2794-69), Wedge Bend (ASTM D-522-68), Adhesion (Cross Hatch ASTM D-3359 & Knife Scratch ASTM D-2197), Environmental (Stain Resistance ASTM D-1308, Humidity ASTM D 2247 - 87, Salt Spray ASTM B-117 & Fadometer 300 hrs with no loss of gloss), Oven-bake Stability 200% at 350 degrees Fahrenheit for 10 minutes.

Park Play Specifications

General System Specifications:

Manufacturer shall offer the following warranties on the materials and components of its system:

- Lifetime limited warranty on support posts (uprights)
- 15-Year limited warranty on punched steel decks, pipes, rails, loops and rungs
- 15-Year limited warranty on rotationally molded polyethylene components
- Lifetime limited warranty on all hardware

Manufacturer shall be ISO 9001/2000 certified

Manufacturer shall show IPEMA certification of compliance for each component that the product conforms with the requirements of ASTM F1487-01.

Parallel Bars
Parallel Bars are bent from 1-7/8" O.D. 11-gauge galvanized steel tube with a baked on polyester powder-coat finish after fabrication.

Freestanding Other

Button Step
BUTTON STEP: The Button Step shall be rotational molded from polyethylene. The polyethylene shall be linear low-density material with UV-stabilized color and an anti-static compound additive. All rotational molded products shall meet or exceed the following specifications: ASTM D-1248, type 2, class A and Federal specification LP-390C, type 1, class M, grade 2, category 3; Density (ASTM D-155); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790); Heat Distortion (ASTM-648); Low Temperature Impact (ARM-STD).

MOUNTING POST: Shall be an all welded assembly fabricated of 2.375" O.D. galvanized steel tubing with a wall thickness of .095" and 12 gauge (.109") hot rolled flat steel that is formed. This assembly shall have a powder coat finish.

PLUG: Shall be fabricated of black butyl rubber with a durometer of 60.

HARDWARE: All nuts, bolts, screws, inserts, and lock washers used in the assembly of all play equipment, shall be stainless steel, yellow dichromate plated steel, blue-coat plated steel, mechanically galvanized or powder coated/yellow dichromate plated steel. All primary fasteners shall be 300 series stainless steel. Fasteners with yellow dichromate treatment have an electro deposited, 99.9% pure zinc substrate applied from a specially formulated solution sealed with a yellow dichromate top coat designed to work in conjunction with the zinc plating. Yellow dichromate has a 320% longer life to white corrosion and 275% longer to red corrosion than does hot-dip galvanizing.

SuperMax Specifications

General System Specifications:

SuperMax features 5" O.D. uprights with a high-strength aluminum alloy clamp fastening system finished with a polyester powder-coat. All uprights shall receive factory installed aluminum post caps and will ship with labels for manufacturer identification.

All decks and components shall connect using the aluminum alloy clamping system. All climbing attachments shall include a 15" wide deck entry archway to control deck access to one child at a time and help prevent inadvertent falls.

Manufacturer shall offer the following warranties on the materials and components of its system:

- Lifetime limited warranty on support posts (uprights)
- 15-Year limited warranty on punched steel decks, pipes, rails, loops and rungs
- 15-Year limited warranty on rotationally molded polyethylene components
- Lifetime limited warranty on all hardware

Manufacturer shall be ISO 9001/2000 certified

Manufacturer shall show IPEMA certification of compliance for each component that the product conforms with the requirements of ASTM F1487-01.

General Specifications of Materials

SuperMax Clamp
Clamp Ring and Adapters are die cast from an A380 high-strength aluminum alloy with a baked-on polyester powder-coat finish.

Plastisol Coating
All metal deck platforms, steps, bridge planks, ramps, kickplates, and chains are plastisol-coated. Each part is chemically washed and completely submerged in a special heat-activated primer and allowed to dry. Parts are then pre-heated and immersed in liquid poly-vinyl-chloride (plastisol). The PVC coating shall have a typical thickness of .080" to .120", and a hardness of Shore A 83 +/-5 normal durometer range. This material is classed as "Self Extinguishing", meets or exceeds automotive specifications NVSS302, and contains ultraviolet inhibitors to help prolong the life of the coating. Standard color is brown, with optional colors available. The following characteristics apply:

Tensile Strength - 2,800 psi
Elongation - 290 %
Tear Strength - 420 lbs/in

Deck Components

Deck Platforms
Metal decks shall be a one-piece construction and shall be designed to maintain a full 48" on center post spacing. Metal decks shall be fabricated from 11 gauge hot rolled steel which shall be punched, formed, and reinforced with welded in place 2-1/2" x 11 ga. steel strips. Decks shall include a pattern of equally spaced slots on each side to provide a flush mounting of play events that attach to the deck, as well as the design of more than one adjacent deck at the same height. Each deck shall have welded at the corner underside a threaded 3/8" stud for attachment to the post's Deck Clamps. This fastening technique eliminates the need for hardware protruding through the deck surface, thereby eliminating the possibility of an entanglement hazard and presenting a clean and smooth deck surface. Entire deck assembly, after fabrication, shall be dipped in a textured skid-resistant poly-vinyl-chloride (plastisol) coating to a minimum thickness of .080".

General Specifications of Materials

Plastisol Coating
All metal deck platforms, steps, bridge planks, ramps, kickplates, and chains are plastisol-coated. Each part is chemically washed and completely submerged in a special heat-activated primer and allowed to dry. Parts are then pre-heated and immersed in liquid poly-vinyl-chloride (plastisol). The PVC coating shall have a typical thickness of .080" to .120", and a hardness of Shore A 83 +/-5 normal durometer range. This material is classed as "Self Extinguishing", meets or exceeds automotive specifications NVSS302, and contains ultraviolet inhibitors to help prolong the life of the coating. Standard color is brown, with optional colors available. The following characteristics apply:

Tensile Strength - 2,800 psi
Elongation - 290 %
Tear Strength - 420 lbs/in

Deck Components

Deck Platforms
Metal decks shall be a one-piece construction and shall be designed to maintain a full 48" on center post spacing. Metal decks shall be fabricated from 11 gauge hot rolled steel which shall be punched, formed, and reinforced with welded in place 2-1/2" x 11 ga. steel strips. Decks shall include a pattern of equally spaced slots on each side to provide a flush mounting of play events that attach to the deck, as well as the design of more than one adjacent deck at the same height. Each deck shall have welded at the corner underside a threaded 3/8" stud for attachment to the post's Deck Clamps. This fastening technique eliminates the need for hardware protruding through the deck surface, thereby eliminating the possibility of an entanglement hazard and presenting a clean and smooth deck surface. Entire deck assembly, after fabrication, shall be dipped in a textured skid-resistant poly-vinyl-chloride (plastisol) coating to a minimum thickness of .080".

General Specifications of Materials

SuperMax Clamp
Clamp Ring and Adapters are die cast from an A380 high-strength aluminum alloy with a baked-on polyester powder-coat finish.

Plastisol Coating
All metal deck platforms, steps, bridge planks, ramps, kickplates, and chains are plastisol-coated. Each part is chemically washed and completely submerged in a special heat-activated primer and allowed to dry. Parts are then pre-heated and immersed in liquid poly-vinyl-chloride (plastisol). The PVC coating shall have a typical thickness of .080" to .120", and a hardness of Shore A 83 +/-5 normal durometer range. This material is classed as "Self Extinguishing", meets or exceeds automotive specifications NVSS302, and contains ultraviolet inhibitors to help prolong the life of the coating. Standard color is brown, with optional colors available. The following characteristics apply:

Tensile Strength - 2,800 psi
Elongation - 290 %
Tear Strength - 420 lbs/in

Deck Components

Kickplates
Kickplate is cut from galvanneal sheet metal with (8) 7/16" x 1" slotted holes punched to coincide with deck flange holes. Corners are rounded, edges are ground smooth, and receives a baked-on polyester powder-coated finish after fabrication.

Triangle Transfer with Handhold
Triangle Transfer with Handhold
The Triangle Transfer shall be made from 12 gauge punched steel with a protective p&o finish in conformance with the specifications outlined herein. The Triangle Transfer shall be a one-piece welded assembly finished with the matte PVC coating per the specifications herein. Handhold shall be fabricated from 1 7/8” O.D. x .12” (11gauge) wall and 1-5/16" O.D. x .083" (14 gauge) wall galvanized steel tubing. Support legs shall be fabricated from 1-5/16" O.D. x .083" (14 gauge) wall galvanized steel tubing. Handhold and Support Legs shall be all-welded assemblies and shall be coated after fabrication with a custom formula of TGIC polyester powder in conformance with the specifications outlined herein.

General Specifications of Materials

Polyester Powder-Coating Process
Powder-coat shall be an electrostatically applied custom formula of TGIC polyester powder. All components will be free of sharp edges and excess weld spatter and shall be cleaned in a four stage solvent/zirconium based bath, as a rust inhibitor, and a sealer to prevent flash rusting before coating. The coating shall have a super tough finish with maximum exterior durability and will have superior adhesion characteristics. Typical characteristics are: 3.0 - 5.0 mil thickness and oven cured between 375 to 425 degrees Fahrenheit. Pencil Hardness H (ASTM D-3363), Impact (ASTM D-2794-69), Wedge Bend (ASTM D-522-68), Adhesion (Cross Hatch ASTM D-3359 & Knife Scratch ASTM D-2197), Environmental (Stain Resistance ASTM D-1308, Humidity ASTM D 2247 - 87, Salt Spray ASTM B-117 & Fadometer 300 hrs with no loss of gloss), Oven-bake Stability 200% at 350 degrees Fahrenheit for 10 minutes.

Plastisol Coating
All metal deck platforms, steps, bridge planks, ramps, kickplates, and chains are plastisol-coated. Each part is chemically washed and completely submerged in a special heat-activated primer and allowed to dry. Parts are then pre-heated and immersed in liquid poly-vinyl-chloride (plastisol). The PVC coating shall have a typical thickness of .080" to .120", and a hardness of Shore A 83 +/-5 normal durometer range. This material is classed as "Self Extinguishing", meets or exceeds automotive specifications NVSS302, and contains ultraviolet inhibitors to help prolong the life of the coating. Standard color is brown, with optional colors available. The following characteristics apply:

Tensile Strength - 2,800 psi
Elongation - 290 %
Tear Strength - 420 lbs/in

Metal Components

Standard Chain Climber
Chain Climber Upper Bracket with loops is fabricated from 1/4" thick steel plate with loops bent from 3/8" O.D stainless steel rod and welded to plate. Entire plate is polyester powder-coated.

Chain Climber Lower Pipe with loops is fabricated from 1-5-16" O.D. galvanized steel tubing with loops bent from 3/8" stainless steel rod and welded to tubing. Entire plate is polyester powder-coated.

Chain Climber is factory-assembled using 1" O.D. x 11-gauge galvanized steel tubes as rungs mechanically fastened to 1/4" Grade-30 ISO Proof Coil Galvanized Chain. Heavy-duty 3/8" x 3" plated "S" hooks are crimped at the end of the chain, and the entire assembly is PVC-coated. No welds are used in this assembly.

General Specifications of Materials

Entry Archway
Entry Archway shall be fabricated from 1-5/16" O.D. x .083" (14 gauge) wall galvanized steel tubing with vertical rungs fabricated from 1-1/16" O.D. x 15 gauge (.075" thick) galvanized steel tubing. L-Fitting is fabricated from 3/16" thick stainless steel for attachment to clamp. The Entry Archway shall be an all-welded assembly and shall be coated after fabrication with a custom formula of TGIC polyester powder coating.

SuperMax Clamp
Clamp Ring and Adapters are die cast from an A380 high-strength aluminum alloy with a baked-on polyester powder-coat finish.

Polyester Powder-Coating Process
Powder-coat shall be an electrostatically applied custom formula of TGIC polyester powder. All components will be free of sharp edges and excess weld spatter and shall be cleaned in a four stage solvent/zirconium based bath, as a rust inhibitor, and a sealer to prevent flash rusting before coating. The coating shall have a super tough finish with maximum exterior durability and will have superior adhesion characteristics. Typical characteristics are: 3.0 - 5.0 mil thickness and oven cured between 375 to 425 degrees Fahrenheit. Pencil Hardness H (ASTM D-3363), Impact (ASTM D-2794-69), Wedge Bend (ASTM D-522-68), Adhesion (Cross Hatch ASTM D-3359 & Knife Scratch ASTM D-2197), Environmental (Stain Resistance ASTM D-1308, Humidity ASTM D 2247 - 87, Salt Spray ASTM B-117 & Fadometer 300 hrs with no loss of gloss), Oven-bake Stability 200% at 350 degrees Fahrenheit for 10 minutes.

Metal Components

Straight Horizontal Ladders
Horizontal Ladders are fabricated from 2-3/8" O.D. 11-gauge galvanized tubing for the side rails welded to 1 5/16" O.D. 14-gauge galvanized rungs. Vertical Ladder is made of 1 5/16" O.D. galvanized tube with 1" O.D. galvanized tube rungs, and 3/16" thick steel tabs. All metal parts shall be coated with a custom formula TGIC polyester powder.

General Specifications of Materials

SuperMax Clamp
Clamp Ring and Adapters are die cast from an A380 high-strength aluminum alloy with a baked-on polyester powder-coat finish.

Polyester Powder-Coating Process
Powder-coat shall be an electrostatically applied custom formula of TGIC polyester powder. All components will be free of sharp edges and excess weld spatter and shall be cleaned in a four stage solvent/zirconium based bath, as a rust inhibitor, and a sealer to prevent flash rusting before coating. The coating shall have a super tough finish with maximum exterior durability and will have superior adhesion characteristics. Typical characteristics are: 3.0 - 5.0 mil thickness and oven cured between 375 to 425 degrees Fahrenheit. Pencil Hardness H (ASTM D-3363), Impact (ASTM D-2794-69), Wedge Bend (ASTM D-522-68), Adhesion (Cross Hatch ASTM D-3359 & Knife Scratch ASTM D-2197), Environmental (Stain Resistance ASTM D-1308, Humidity ASTM D 2247 - 87, Salt Spray ASTM B-117 & Fadometer 300 hrs with no loss of gloss), Oven-bake Stability 200% at 350 degrees Fahrenheit for 10 minutes.

Metal Components

Single Seat
The Single Seat shall consist of a 13 ½" Dia. cast aluminum seat mounted to a 1.66" OD x .083" (14 gauge) pipe (seat arm) via ½" set screw. It shall be coated with a custom formula of TGIC polyester powder, after fabrication in conformance with the specifications outlined herein. The seat arm is connected to an upright with a welded mounting tab and upright clamp.

General Specifications of Materials

SuperMax Clamp
Clamp Ring and Adapters are die cast from an A380 high-strength aluminum alloy with a baked-on polyester powder-coat finish.

Deck Components

Deck to Deck Stairs
Right and Left Barrier Assembly:
Shall be fabricated from 1.029" O.D. x .072" (15 gauge) wall galvanized steel rung, 1-5/16" O.D. x .083"(14 gauge) wall galvanized steel socket, 14 gauge galvanized steel pipe cap, and 11 gauge laser cut steel tab. Right and Left Barrier Assembly shall be an all-welded assembly and shall be coated after fabrication with a custom formula of TGIC polyester powder coating in conformance with specifications outlined herein.
Coated Stairs:
Shall be fabricated from 12 gauge (.109"thick) punched steel with a protective pickled and oiled finish. The Coated Stairs is chemically washed and completely submerged in a special heat-activated primer and allowed to dry. Then pre-heated and immersed in liquid poly-vinyl-chloride (plastisol). The PVC coating shall have a typical thickness of .080"to .120" and a hardness of Shore A 83 +/- 5 normal durometer range. This material is classed as "Self-extinguishing"meets or exceeds automotive specifications NVSS302, and contains ultraviolet inhibitors to help prolong the life of the coating. The following characteristics apply: Tensile Strength - 2,800 psi, Elongation - 290%, Tear Strength - 420 lbs. /in.

Pipe Adapters:
Shall be fabricated from die cast from an A380 high-strength aluminum alloy with a baked-on polyester powder-coat finish.

General Specifications of Materials

Hardware
All nuts, bolts, and washers, with exceptions noted, shall be 3/8" diameter 18-8 stainless steel in varying lengths, with a vandal-resistant hex-pinned head configuration and factory-applied locking patch. When allowed a 72-hour cure time, the locking patch will prevent the bolt from loosening without at least 4 times the installation torque. Play & Park Structures will supply the special tool required to turn vandal-resistant hardware with each shipment. 1/2" diameter Ramp and Arch Bridge connecting hardware shall be Grade 5 zinc-plated, and 3/8" Clatter Bridge security bolts shall be Grade 8 hardened and zinc-plated.

Polyester Powder-Coating Process
Powder-coat shall be an electrostatically applied custom formula of TGIC polyester powder. All components will be free of sharp edges and excess weld spatter and shall be cleaned in a four stage solvent/zirconium based bath, as a rust inhibitor, and a sealer to prevent flash rusting before coating. The coating shall have a super tough finish with maximum exterior durability and will have superior adhesion characteristics. Typical characteristics are: 3.0 - 5.0 mil thickness and oven cured between 375 to 425 degrees Fahrenheit. Pencil Hardness H (ASTM D-3363), Impact (ASTM D-2794-69), Wedge Bend (ASTM D-522-68), Adhesion (Cross Hatch ASTM D-3359 & Knife Scratch ASTM D-2197), Environmental (Stain Resistance ASTM D-1308, Humidity ASTM D 2247 - 87, Salt Spray ASTM B-117 & Fadometer 300 hrs with no loss of gloss), Oven-bake Stability 200% at 350 degrees Fahrenheit for 10 minutes.

Rotomolded Components

Avalanche & Landslide Slides
Footbuck:

Shall be 1 5/16" O.D. 14-gauge galvanized steel tubing and 12GA. (.109”) Sheet metal P & O. All parts are all welded construction with a baked on polyester powder-coated finish after fabrication.

SLIDE SECTIONS:
All Rotationally Molded Products are manufactured from linear low-density polyethylene UV-stabilized color and an anti-static compound additive. The tensile strength of this material is to be 2500 PSI as defined by ASTM D638. The typical wall thickness will be .250" (¼"). All rotationally molded products shall meet or exceed the following specifications: ASTM D-1248, type 2, class A and Federal specification LP-390C, type 1, class M, grade 2, category 3; Density (ASTM D- 1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790); Heat Distortion (ASTM-648); Low Temperature Impact (ARM-STD). All solid plastic panels are manufactured from high-density polyethylene. All solid plastic panels shall meet or exceed the following specifications: Density (ASTM D- 1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790).

Slide Support:
Support Plate shall be made of 12 GA. H.R. Steel, sheet sheared into 11 ¼" Wide strips. Footbuck pipe shall be made of 2" L.W. GALV. PIPE, 41 11/16" LG. All parts are all welded construction with a baked on polyester powder-coated finish after fabrication.

Hardware:
All nuts, bolts, screws, inserts, and lock washers used in the assembly of all play equipment shall be stainless steel, yellow dichromate plated steel, blue-coat plated steel, mechanically galvanized or powder coated/yellow dichromate plated steel. All primary fasteners shall be 304 alloy stainless steel. Fasteners with yellow dichromate treatment have an electro-deposited, 99.9% pure zinc substrate applied from a specially formulated solution sealed with a yellow dichromate top coat designed to work in conjunction with the zinc plating. Yellow dichromate has a 320% longer life to white corrosion and 275% longer to red corrosion than does hot-dip galvanizing. Stainless steel fasteners hall be button pin-in head, hex socket cap screws with a two-part epoxy locking patch added to the threads. The two-part locking patch shall consist of one part resin and one part catalyst which are activated during installation. After curing, the material shall require a minimum of five times the installation torque to remove the fastener. Manufacturer shall provide special installation tools for pinned fasteners.

HDPE Components

Gear Panel
Gear Panel shall be color-impregnated linear low density polyethylene and shall conform to the rotationally molded specifications outlined herein. Gears shall be made from 3/4" thick (solid) high density, UV-stabilized and color impregnated polyethylene, with Polycarbonate windows.

Sensors

Sensory Summit Arch Climber
Sensory Wave Pieces:
Shall be one piece construction manufactured from linear low-density polyethylene material and shall conform to the rotationally molded specifications outlined herein. Polyethylene shall be linear low-density material with UV-stabilized color and an anti-static compound additive. Rotationally molded products shall meet or exceed the following specifications: ASTM D-1248, type 2, class A and Federal specification LP-390C, type 1, class M, grade 2, category 3; Density (ASTM D- 1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790);Heat Distortion (ASTM-648); Low Temperature Impact (ARM-STD).

Metal Components:
The footbuck weld assembly shall be an all weld assembly fabricated from 3 1/2" O.D. X .095" (13 gauge) wall galvanized steel tubing and 3/16" steel plate. The footbuck shall be coated with a custom formula of TGIC polyester powder coating in conformance with the
specifications outlined herein, after fabrication.

General Specifications of Materials

Hardware
All nuts, bolts, screws, inserts, and lock washers used in the assembly of all play equipment, shall be stainless steel, yellow dichromate plated steel, blue-coat plated steel, mechanically galvanized or powder coated/yellow dichromate plated steel. All primary fasteners shall be 300 series stainless steel. Fasteners with yellow dichromate treatment have an electro deposited, 99.9% pure zinc substrate applied from a specially formulated solution sealed with yellow dichromate top coat designed to work in conjunction with the zinc plating. Yellow
dichromate has a 320% longer life to white corrosion and 275% longer to red corrosion than does hot-dip galvanizing. NOTE: All weightsare based on average comparisons of each part.

Powder Coat Finish

Powder-coat shall be an electrostatically applied custom formula of TGIC polyester powder. All components will be free of sharp edges and excess weld spatter and shall be cleaned in a four stage solvent/zirconium based bath, as a rust inhibitor, and a sealer to prevent flash rusting before coating. The coating shall have a super tough finish with maximum exterior durability and will have superior adhesion characteristics. Typical characteristics are: 3.0 - 5.0 mil thickness and oven cured between 375 to 425 degrees Fahrenheit. Pencil Hardness H (ASTM D-3363), Impact (ASTM D-2794-69), Wedge Bend (ASTM D-522-68), Adhesion (Cross Hatch ASTM D-3359 & Knife Scratch ASTM D-2197), Environmental (Stain Resistance ASTM D-1308, Humidity ASTM D 2247 - 87, Salt Spray ASTM B-117 & Fadometer 300 hrs with no loss of gloss), Oven-bake Stability 200% at 350 degrees Fahrenheit for 10 minutes.

Metal Components

Tilt & Twirl II
TOP FRAME ASSEMBLY:
Shall be an all welded construction fabricated from 2.375" O.D. (10ga.) galvanized steel tubing, 1.66" O.D. (12ga.) galvanized steel tubing, 3/16" hot rolled steel formed 5" O.D. Half Clamp, a 1/4" hot rolled laser cut steel, and a Machine Collar fabricated from 2.875" O.D. schedule 80 pipe. The Top Frame Assembly shall be coated after fabrication with a custom formula of TGIC polyester powder coating in conformance with the specifications outlined herein.

TILT N' TWIRL:
Shall be an all welded construction fabricated from 2.375" O.D. (10ga.) galvanized steel tubing, 1.315" O.D. (12ga.) galvanized steel tubing, 1.315" O.D. (14ga.) galvanized steel tubing, hot rolled steel plate (14ga.), 2" O.D. CR. Steel Ball End, and a Machine Collar fabricated from 2.875" O.D. schedule 80 pipe. The Tilt N' Twirl shall be coated after fabrication with a custom formula of TGIC polyester powder coating in conformance with the specifications outlined herein.

BOTTOM BASE ASSEMBLY:
Shall be an all welded construction fabricated from 2.375" O.D. (13ga.) galvanized steel tubing and 2" O.D. CR. Steel Ball End. The Bottom Base Assembly shall be coated after fabrication with a custom formula of TGIC polyester powder coating in conformance with the specifications outlined herein.

CONNECTING PIPE ASSEMBLY:
Shall be an all welded construction fabricated from 2.375" O.D. (13ga.) galvanized steel tubing and a zinc plated 3/16" hot rolled steel formed mounting tab. The Connecting Pipe Assembly shall be coated after fabrication with a custom formula of TGIC polyester powder coating in conformance with the specifications outlined herein.

UHMW HALF CUP:
Shall be an oil impregnated ultra high molecular weight polyethylene half cup.

General Specifications of Materials

Hardware
All nuts, bolts, and washers, with exceptions noted, shall be 3/8" diameter 18-8 stainless steel in varying lengths, with a vandal-resistant hex-pinned head configuration and factory-applied locking patch. When allowed a 72-hour cure time, the locking patch will prevent the bolt from loosening without at least 4 times the installation torque. Play & Park Structures will supply the special tool required to turn vandal-resistant hardware with each shipment. 1/2" diameter Ramp and Arch Bridge connecting hardware shall be Grade 5 zinc-plated, and 3/8" Clatter Bridge security bolts shall be Grade 8 hardened and zinc-plated.

Rotomolded Components

Solstice Climber Links & Attachments
SIDE ENTRY ARCHWAY shall be fabricated of 1 5/16" O.D. x .083" (14 gauge) wall galvanized steel tubing with vertical rungs fabricated from 1-1/16" O.D. x 15 gauge (.075" thick) galvanized steel tubing. L-Fitting is fabricated from 3/16" thick hot rolled steel for attachment to clamp. The Entrance Enclosure shall be an all-welded assembly and shall be coated after fabrication with a custom formula of TGIC polyester powder coating.

SOLSTICE CLIMBER shall be rotationally molded from an extremely durable double-walled low-density polyethylene with (UV) light stabilizers and color molded in. This material complies with STM-D-1248, Type 2, Class A, and Federal specification LP-390C, Type
1, Class M, Grade2, Category 3, and has a minimum 1/4" wall thickness.

SUPPORTS are fabricated from .120 (11gauge) hot-rolled flat steel, and 2-1/2"

Avalanche & Landslide Slides
Footbuck:

Shall be 1 5/16" O.D. 14-gauge galvanized steel tubing and 12GA. (.109”) Sheet metal P & O. All parts are all welded construction with a baked on polyester powder-coated finish after fabrication.

SLIDE SECTIONS:
All Rotationally Molded Products are manufactured from linear low-density polyethylene UV-stabilized color and an anti-static compound additive. The tensile strength of this material is to be 2500 PSI as defined by ASTM D638. The typical wall thickness will be .250" (¼"). All rotationally molded products shall meet or exceed the following specifications: ASTM D-1248, type 2, class A and Federal specification LP-390C, type 1, class M, grade 2, category 3; Density (ASTM D- 1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790); Heat Distortion (ASTM-648); Low Temperature Impact (ARM-STD). All solid plastic panels are manufactured from high-density polyethylene. All solid plastic panels shall meet or exceed the following specifications: Density (ASTM D- 1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790).

Slide Support:
Support Plate shall be made of 12 GA. H.R. Steel, sheet sheared into 11 ¼” Wide strips. Footbuck pipe shall be made of 2” L.W. GALV. PIPE, 41 11/16” LG. All parts are all welded construction with a baked on polyester powder-coated finish after fabrication.

Hardware:
All nuts, bolts, screws, inserts, and lock washers used in the assembly of all play equipment shall be stainless steel, yellow dichromate plated steel, blue-coat plated steel, mechanically galvanized or powder coated/yellow dichromate plated steel. All primary fasteners shall be 304 alloy stainless steel. Fasteners with yellow dichromate treatment have an electro-deposited, 99.9% pure zinc substrate applied from a specially formulated solution sealed with a yellow dichromate top coat designed to work in conjunction with the zinc plating. Yellow dichromate has a 320% longer life to white corrosion and 275% longer to red corrosion than does hot-dip galvanizing. Stainless steel fasteners hall be button pin-in head, hex socket cap screws with a two-part epoxy locking patch added to the threads. The two-part locking patch shall consist of one part resin and one part catalyst which are activated during installation. After curing, the material shall require a minimum of five times the installation torque to remove the fastener. Manufacturer shall provide special installation tools for pinned fasteners.