

## EQUIPMENT SPECIFICATIONS

170 Allens Way, Somerset, KY 42501

Revise Date: 2020

**IPEMA Certified Products**

IPEMA: In the interest of playground safety, the International Play Equipment Manufacturers Association (IPEMA) provides a Third Party Certification Service, whereby a designated independent laboratory, (TÜV SÜD America Inc.), validates an equipment manufacturer's certification of conformance to ASTM F1487, Standard Consumer Safety Performance Specification for Playground Equipment for Public Use, except sections 7.1.1, 10 and 12.6.1. and conformance to CSA Z614-07 Children's Playspaces and Equipment. TÜV SÜD America Inc. is a globally recognized testing, inspection, and certification organization. The use of the corresponding logo in Nature of Early Play's website signifies that Nature of Early Play has received written validation from the independent laboratory that the product(s) associated with the use of the logo conforms to the requirements of the indicated standard. Check the IPEMA website ([www.ipema.org](http://www.ipema.org)) to confirm product validation.

**Registered Landscape Architect Approved Designs**

All designs, site plans or other drawings generated from Nature of Early Play's AutoCAD and Inventor designers are approved by a Registered Landscape Architect, ASLA License #506.  
Registered Architect, supportive drawings in Google SketchUp.

**Structural components:**

Recycled Structural Plastic (RSP™) RSP – Recycled Structural Plastic is extruded in house using 85% recycled HDPE #2 by weight. The formula for RSP is comprised of roughly 30% internal HDPE plastic waste, 30% postindustrial milk jugs, 30% postindustrial Clorox bottles and the remainder in colorant, structural fiber and UV protection. Our proprietary formula comprised of post-consumer and post-industrial plastics prevents thousands of pounds and millions of plastic bottles from entering the landfills, waterways and oceans. When you buy play equipment made from RSP, you are part of the solution – not part of the plastic problem. Structural deck systems pass the ASTM 12.4.1.3. structural integrity tests withstanding 273# / sq. ft. without failure. (See [www.ipema.org](http://www.ipema.org) for validated products) Horizontal structural members with steel inserts meet a stress level of 2610.00 psi.

Mini Systems: 4" x 4" [nominal] solid posts with uniform color. 4.5 #sq/ft - 24" x 31" Deck System

Mega Systems: 6" x 6" [nominal] solid post with uniform color 10 #sq/ft - 46" x 36" Deck System 10 #sq/ft

All structural components must comply with ASTM-F 1487-07. 12 for Structural Integrity.

**Walking Surfaces:**

**SureStep™ Non-Slip RSP™ Walking Surfaces:** All decks, bridges, transfer stations, and all walking surfaces comprised of RSP™ with a minimum of (27) slip-resistant ridges (1/8" WIDE with 1/16" spacing) to prevent injuries by falls when wet.

**Hardware:**

All hardware shall be stainless steel; minimum of grade 304 Stainless Steel. Hardware employs a vandal-resistant lock system. Galvanized, zinc coated, or plated hardware will not be accepted. Manufacturer must validate stainless steel and country of origin. Products manufactured in China will not be accepted. Meet standards for ASTM B-117 and ASTM D-1654; ASTM-F 1487-07 6.2, CPSC 9.1-9.4: all hardware shall be assembled such that no protrusion hazards or sharp edges exist.

**Metal Components:**

**SureGrip™ Paint** - Safety Powder Epoxy Wrinkle Finish for all metal products. Specific gravity meets a calculated range of 1.2 – 1.7, direct impact resistance up to 140 in. / lb. Flexibility follows the ASTM D 522 Test Method B, with equal to or less than .25 mandrel. Pencil hardness, following ASTM D test method 3368

[greater than or equal to “H”, refer to standard]. Salt Spray resistance meets a 1000+ hour resistance rate. Humidity resistance meets a 1000+ hour resistance rate. Gloss (60°) [refer to ASTM D 523] less than 5 units.

**Grade 304 Stainless Steel** attachment plates, angle iron and welding wires for all applications.

**Meet standards for ASTM B-117 and ASTM D-165** - Industry Average Steel recycled content: 85% minimum.

#### **Cautions for the End User:**

Equipment Manufacturers should be able to supply specification sheets for every material for verification. In particular specs should be provided for stainless steel hardware, plates and welding wire. A simple in-house test is to use a magnet on all metal parts. Stainless is not magnetic; steel (zinc coated or plated) is magnetic. Verification should also be provided on the recycled content of any product claiming to be “recycled”. In particular, if any manufacturer claims its product is 100% recycled ask for verification. Most recycled materials require some portion of virgin materials to achieve consistency in color, strength, & durability.

#### **Plastic Components: Rotomolded**

Refer to ASTM D 1248 type 2 class A category 3 and Federal Specification LP-390 type 1, class M, grade 2: rotationally molded using polyethylene resin with wall thickness varying with the specific component's size and stress design from ¼”, 5/16”, and 3/8” with the tolerances being plus or minus 1/16”. All polyethylene shall contain a UV-8 maximum ultraviolet stabilization package.

#### **Plastic Components: Roofs, panels, post-caps**

**Flat Plastic** 15% recycled high density polyethylene (HDPE), with stabilizer, UV protectant and colorant additives.

Refer to ASTM-F 1487-07 4.1, 4.1.1: Designed for commercial playground equipment industry

ASTM-D 257: Graffiti-resistant finish, non-delaminating.

ASTM-D 570: Moisture Resistant

ASTM-F 1487 4.1.1 UV Stabilized for Outdoor Applications

ASTM-D 638 – ½” – ¾” in thickness

#### **Requirements, Standards, & Guidelines:**

##### **ADAAG (Americans with Disabilities Act Accessibility Guidelines)**

Playground equipment and entire play site shall conform to the accessibility requirements of the Americans with Disability Act Accessibility Guidelines including section 15.6.

##### **ASTM & CPSC & CSA**

All equipment must meet or exceed requirements established by the American Society for Testing & Materials (ASTM) and by the Canadian Standards Association (CSA) and equipment must conform to the U.S. Consumer Product Safety Commission's CPSC) Publication 325 Public Playground Safety Handbook.

##### **Manufacturer qualifications**

International Play Equipment Manufacturer's Association (IPEMA) Certification is required to guarantee compliance with ASTM Standards, per requirements of ASTM F 1487, Sec. 12.6.1. and CSA Standards. Membership does not constitute certification.

##### **IPEMA Certified Products**

Manufacturer's products must be certified by “International Play Equipment Manufacturers Association” (IPEMA) and show current participation in the Third Party Certification Service with the designated independent laboratory, *TÜV SÜD America Inc.* (TUV), certifying conformance to the most current ASTM F1487 and CSA Z614 standards and CPSC Pub 325 Guidelines.

#### **Drawings:**

Play equipment and site plan drawings should be approved by a licensed landscape architect, licensed architect, or licensed engineer.