VersaCourt Game Tile System Specification

PART I – GENERAL

1.01 DESCRIPTION

A. Scope of work
   Furnishing of materials for the flooring system described below. The flooring is a modular interlocking suspended plastic tile system. Includes installation, application of game lines, and maintenance instructions for the flooring system.

B. Related Work Specified Elsewhere
   1. Installation of concrete, asphalt, or other base material.
   2. Preparation of base to provide a medium broom surface finish with tolerances of (+) or (-) ¼” in any 10’ radius.
   3. Membrane waterproofing as determined by the project engineer.

PART II – WARRANTIES

2.01 MANUFACTURER’S LIMITED WARRANTY

A. VersaCourt® outdoor flooring is covered under a scaled lifetime warranty by the manufacturer for any defects in materials and workmanship

2.02 INSTALLERS

A. Installer shall provide a one (1) year warranty on his workmanship as it pertains to the installation of the modular flooring and accessories.

PART III – PRODUCT

3.01 MATERIALS

A. VersaCourt court tiles
   1. Description – An injection molded, high impact plastic tile supplied in pre-assembled 16-tile sheets.
   2. Size – 10.13” x 10.13” x 3/4” (25.73cm x 25.73cm x 19.05mm)
   3. Material – Specially blended high impact polypropylene copolymer. UV stabilizer and anti-oxidant additives are molded into each tile to insure protection against color fade and plastic deterioration & oxidations.
   4. Surface Texture – Specially designed open grid that provides a high grip surface in all weather conditions. NOTE: Plastic game tiles can become slippery when moisture is present on the surface.
   5. Tile Interlocking Mechanism – The tile interlocking system is designed to allow for thermal expansion and contraction without causing the surface to buckle. It also provides the player with lateral forgiveness.
   6. Colors – Standard colors and custom options available
   7. Support Structure – Each tile is supported by 155 cross posts. This provides a stable base while at the same time vertical flex.
   8. Weight – 7 oz.

B. VersaCourt court ramp tiles
   1. Description – An injection molded, high impact plastic ramp tile. Used around the edge of court as ramp from ground to tile level.
   2. Size – 10.13” x 2” x 3/4” thick
   3. Material – Same as tile
4. Surface texture – Smooth
5. Tile Interlocking Mechanism – Same as tile
6. Colors – Same as tile
7. Support Structure – Same as tile
8. Weight – 1.6 oz.

C. Line Stripe Painting
   1. Primer/Paint - A proprietary adhesion promoter and 2-Part polyurethane based, marine grade paint is required.
   2. Logos – Custom logos may also be painted onto the surface of the tile.

PART IV – PHYSICAL PROPERTIES

4.01 MATERIAL TEST RESULTS
   A. Rockwell hardness (ASTM D 785): 74
   B. Heat Deflection @ .455 MPa (ASTM E 648): 195
   C. Flaming at 1000mm (ASTM E 648): 4 min 45s
   D. Auto-ignition temperature (ASTM D-1929): 980°F
   E. Vicat softening point (ASTM D-1525): 260°F
   F. Low Temperature Brittleness (ASTM D-2137): -25°F
   G. Coefficient of Linear Thermal Expansion, (ASTM D-696, E-831): 63 x 10-6 (in/in)/°F
   H. E-Modulus (ASTM D-5418) 126,000 psi (850MPa)
   I. Flex Modulus (ASTM D-790) 122,000 psi
   J. Tensile Yield Strength (ASTM D-638) 3,300 psi
   K. Elongation at Yield (ASTM D-638) 18%
   L. Notched Izod (ASTM D-256) 15 ft-lb / in at 20°C

4.02 PRODUCT TEST RESULTS
   A. Flame Spread Index (ASTM E-162): 4 min. 30 sec.
   B. Smoke Development (ASTM E-162): 1 min. 46 sec.
   C. Radiant Panel (ASTM E-84,162,648): .12 Watts/cm²
   D. Friction Test (ASTM C-1028): Dry<.71, wet<.52
   E. Compression vs. Crush (ASTM D-3998): No Break
   F. Noise Reduction Coefficient (ASTM C-423): 25%
   G. R-Value: < 1.0
   H. Flatness: ± 1.5mm
   I. Load Bearing Capacity: 180 psi
   J. Vertical Rebound Characteristics (ASTM F2117-10) 97.1%
   K. Resistance of Synthetic Polymeric Materials to Fungi (ASTM G21-15): Rating 0 of 4

4.03 EN 14904 TEST
   A. Fire Test: EN 13501-1
   B. Emission of formaldehyde: EN 717-1
   C. Emission of pentachlorophenol: Annex D
   D. Release of other dangerous substances: National Standards
   E. Linear Friction: EN 13036-4 using CEN rubber
   F. Shock Absorption: EN 14808
   G. Resistance to a rolling road: EN 1569
   H. Resistance to wear: EN 5470-1 using taber abrader with H18 wheels with load of 1 kg (on lacquer: CS10 wheels with 0.5 kg load)
I. Vertical ball rebound: EN 12235 using basketball
J. Vertical deformation: EN 14809
K. Resistance to indentation: EN 1516

4.04 EN 14877 TEST
A. Linear friction: EN 13036-4 using CEN number
B. Shock Absorption: EN 14808: original and after ageing in hot air according to EN 13817
   followed by immersion in hot water according to EN 13744
C. Vertical deformation: EN 14809
D. Vertical ball rebound: EN 12235 using basketball
E. Resistance to a rolling road: EN 1569
F. Water permeability: EN 12616
G. Specular reflectance: EN 13745
H. Resistance to wear: EN 5470-1 using taber abrader with H18 wheels with load of 1kg and after
   EN 14836
I. Colour loss: EN ISO 20105-A02 after artificial weathering according to EN 14836
J. Maximum tensile strength: EN 12230: original and after ageing in hot air according to EN 13817
   followed by immersion in hot water according to EN 13744
K. Absolute thickness EN 1969: method A

PART V – EXECTION

5.01 INSTALLATION
A. VersaCourt court tile
   1. Court tiles will be installed according to pre-approved layout.
   2. Court tiles will be installed and/or supervised according to manufacturers
      specifications by an authorized, factory trained dealer or representative.

B. Game line painting
   1. Floor surface shall be clean, dry and free of debris.
   2. Game lines shall be painted using a proprietary adhesion promoter and 2-Part
      polyurethane based, marine grade paint is required.

5.02 MAINTENANCE
A. Maintenance Procedure
   1. It is recommended to keep the surface free of leaves, limbs and grass clippings by
      using a leaf blower. Every 2-3 years it may be necessary to pull the tile up and sweep
      out any dirt or debris that may have accumulated under the tile.