

Guide Specifications for FLEX COURT® Tennis Court Surface

Form No. 247

PART I – GENERAL

1.01 DESCRIPTION

A. Scope of Work

Furnishing of materials of the flooring system described herein, including the interlocking suspended synthetic (polypropylene high impact copolymer of proprietary formulation) modular tile system and complete installation thereof, and application of game lines, as well as maintenance instructions for the system.

B. Related Work Specified Elsewhere

1. Installation of concrete, bituminous, or wood substrate.
2. Preparation of substrate to provide a medium dense finish with level tolerances of (+) or (-) ¼" in any 10' radius.
3. Membrane waterproofing as determined by project engineer. NOTE: FLEX COURT® surfaces are not affected by moisture.

1.02 QUALITY ASSURANCE

A. Acceptable Installer

1. FLEX COURT representative shall supervise the flooring installation as per the installation instructions of the manufacturer.
2. Successful bidder must submit a minimum of (3) three completed projects of similar magnitude and complexity within the last (2) two years. List of projects shall include name, address, phone number, and contact person.

1.03 STORAGE

A. Storage of Material

1. The general contractor shall provide a secure, clean and dry location for storage of material.

1.04 JOB CONDITIONS

A. Schedule of Installation

1. FLEX COURT® shall preferably not be installed until all other trades are completely finished in the area
2. Substrate shall be level to specified tolerances, free of debris and materials, and broom-clean.

B. Outdoor Requirements

Substrate shall be coated with sealer material as specified by the manufacturer's installation guide.

1.05 WARRANTY

A. Manufacturer's Limited Warranty

FLEX COURT® court surface shall be warranted by the manufacturer for any defects in materials and workmanship for a period of 15 years from the date of purchase as set forth in the manufacturer's standard limited warranty.

PART II – PRODUCTS

2.01 MATERIALS

A. FLEX COURT® Tennis Court Surface

1. Description: open grid design shall be 10" x 10" x 3/4" (25.4cm x 25.4cm x 18mm), high impact polypropylene copolymer suspended modules with open support structures for drainage. The tiles shall interlock, without being in constant tension for proper expansion ability.

B. Underlayment

1. An underlayment shall not be required if the floor is being used for outdoor use, however may be stipulated as an option for use as indoor tennis and multi-purpose ball game court.

C. Line Striping

A. Integrated Lines

Preferably, as many sports lines as possible to of 2"x10" integrated line tile of same material as the 10"x10" tiles

B. Optional Painted Lined

1. Primer: Recommended primer is Flexible Bonding 39861 by SEM or Plastic Adhesion Promoter 6246 by NAPA

2. Paint: aliphatic polyurethane paint

C. Ink

For large, colorful logos, special ink is recommended, protected with a layer of clear polyurethane coating

PART III – PHYSICAL PROPERTIES

3.01 MATERIAL TEST RESULTS

- A. Rockwell hardness (ASTM D 785): 65
- B. Heat deflection@ 66 psi (ASTM E 648): 180
- C. Flaming at 1000mm (ASTM E 648): 4 min 30s
- D. Auto-ignition temperature (ASTM D-1929): 950° F
- E. Vicat softening point (ASTM D-1525): 284° F

- F. Low temperature brittleness (ASTM D-2137): -22° F
- G. Co-efficient of Linear Thermal Expansion, (ASTM D-696, E-831): 3.3×10^{-5} (in/in) / ° F
- H. E-Modulus (ASTM D-5418) 136,000 psi (850MPa)
- I. Flex-Modulus (ASTM D-790) 145,000 psi
- J. Tensile Yield Strength (ASTM D-638) 3200 psi
- K. Elongation at Yield (ASTMD-638) 9.0%
- L. Notched Izod (ASTM D-256) 18 (ft-lbs / in) at 20° C
- M. Ultra Violet (UV) protection 10% max fading over 10 years at 140 kLy exposure

3.02 PRODUCT TEST RESULTS

- A. Flame spread Index (ASTM E-468): 4m55s
- B. Smoke Development (ASTM E-162): 2m23s
- C. Radiant Panel (ASTM E-84, 162, 648) 0.12 Watts/cm²
- D. Friction Test (ASTM C-1028) dry < .40 wet < .60
- E. Compression vs. crush (ASTM D-3998): no break
- F. Noise Reduction Coefficient (ASTM C-423) 20%
- G. Rolling Load (DIN 18032) Very Good
- H. R-Value < 1.0
- I. Flatness +/- 0.02 mm
- K. Load Bearing Capacity: >185 pounds per sq.in.

3.03 SANITARY INFORMATION

- A. Resistance to fungi (in compliance with ASTM G-21). Basic organisms test (ATCC #6205) indicates zero growth.
- B. Resistance to the following:
 - Bacteria and mildew resistance
 - Gram-positive bacterial Staphylococcus Aureus
 - Gram-negative Klebsiella Pneumoniae
 - Pink-staining organism.
 - STV Reticulum
 - Surface fungi growth prior to and following leaching.

PART IV – EXECUTION

4.01 INSPECTION

- A. Substrate
 1. Substrate shall be free of contamination, dry and level. Substrates with structural failures shall be prepared insofar as to prevent tiles from catching on sharp ridges. To prevent dust, substrates shall be sealed.

4.02 INSTALLATION

- A. FLEX COURT® Tennis Court Surface
 1. Court surface shall be installed to pre-approved layout.
 2. Court surface shall be installed and/or supervised to manufacturers specifications by an authorized, factory trained dealer or representative.
- B. Line Tiles / Game Striping / Lining
 1. As many Integrated Line Tiles as possible preferred
 - When Painting Lines:
 2. Floor surface shall be clean and free of debris.
 3. Lines shall preferably be taped using special 3M tape, or primed and painted using recommended primer and a recommended aliphatic polyurethane paint.

4.03 MAINTAINANCE

- A. Maintenance Procedure
 1. Court contractor shall provide detailed care and cleaning procedures.
 2. Court contractor shall provide a recommended tool for disassembly and reassembly.