SECTION 09 6566

RESILIENT ATHLETIC FLOORING

PART 1 GENERAL

1.1 SUMMARY

A. Work of this Section consists of resilient athletic tile flooring, and includes but is not limited to the following:

1. Resilient sheet flooring.
2. Impact-resistant interlocking tile flooring.
3. Installation adhesives and accessories.

B. Related Documents and Sections: Examine Contract Documents for requirements that directly affect or are affected by Work of this Section. A list of those Documents and Sections include, but is not limited to the following:

1. Drawings and general provisions of the Contract, including General and Supplementary Conditions, and Division 01 General Requirements Specification Sections.
2. Section 03 3000 - CAST IN PLACE CONCRETE.
3. Section 09 6516 - RESILIENT SHEET FLOORING.

1.2 SUBMITTALS

A. Shop Drawings: For each type of floor covering. Include floor covering layouts, locations of seams, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.

B. Samples: For each type of floor covering indicated.

1. Samples for Verification: In manufacturer's standard size, but not less than 6 by 9 inch sections of each different color and pattern of floor covering required.

C. Shop Drawings

1. For each type of floor tile. Include floor tile layouts, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.
   a. Show details of special patterns.
   b. Submit drawings at 1/4” scale.

D. Quality Assurance Submittals

1. Resilient Flooring: Manufacturer’s written information regarding resilient flooring performance data provided by an independent testing lab.
2. Adhesives: Manufacturer’s written information regarding compatibility of adhesive with substrate and resilient flooring material.
3. Manufacturer’s instructions and product limitations for materials used in the Work of this Section.

1.3 QUALITY ASSURANCE

A. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance.

B. Installer Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for floor covering installation indicated.

1. Engage an installer who employs workers for this Project who are trained or certified by floor covering manufacturer for installation techniques required.

C. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E648 or NFPA 253 by a qualified testing agency

1.4 WARRANTY

A. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to and not a limitation of, other rights Owner may have under Contract Documents.

1. Warranty Period: 5 years commencing in Date of Substantial Completion.

PART 2 PRODUCTS

2.1 RESILIENT RUBBER ATHLETIC SHEET FLOORING

A. Basis of Design Manufacturer / Product: ECORE Everlast Basic Roll, or an Architect acceptable equivalent, subject to compliance with requirements.

1. Thicknesses: Refer to Finish Schedule.
2. Colors: Refer to Finish Schedule.

B. Primers And Adhesives

1. Water-resistant, mildew-resistant, non-staining, pressure-sensitive type to suit products and subfloor conditions indicated, that complies with flammability requirements for resilient flooring and is recommended by resilient flooring manufacturer for releasable installation.
2. Provide adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
    a. Rubber Floor Tile Adhesives: Not more than 60 g/L.
3. Compatibility: Provide adhesives specifically recommended by flooring manufacturer for compatibility between flooring material and substrate.
    a. Adhesive Type: One-component urethane, moisture cured, non-sag permanently elastic adhesive equal to ECORE E-Grip III.

2.2 IMPACT RESISTANT RESILIENT TILE FLOORING

A. Description: Resilient floor interlocking tile system made from up to 92% recycled rubber content, comprised of resilient floor covering and interdependent concentric ring, hollow-core impact pedestals on the underside.

B. Cardio Area: GenieMat FIT30 as manufactured by Pliteq, or equivalent acceptable to the Architect.

1. Texture and Appearance: mostly smooth surface. Non-porous granulated rubber surface with colored speckles
2. Color: As selected from the manufacturer's full line of standard and custom color blends
3. Dimension: Tile: 24" x 24" (610 mm x 610 mm)
4. Tolerance: +/- 1/8" (3 mm) for width and +/- 3/32" (1 mm) for thickness
5. Thickness: 1-1/4" (nom. 32 mm)
6. Technical Data:
    a. Wear Surface Density (Durability): > 60 lb/ft³ (>961 kg/m³)

b. Acoustical IF09-002 (ASTM E2179): ∆ 26 dB
c. Acoustical A09-009 (ASTM EC423/E795): SAA = 0.14, NRC 0.15
d. Rubber Deterioration/ Air Oven: (ASTM D573): No deterioration
e. Freeze Thaw (ASTM C67): No deterioration
f. Slip Resistance (ASTM E303): 102 Dry, 62 Wet
g. Slip Resistance (ASTM D2047): 0.81 Dry, 0.82 Wet
h. Tensile Strength (ASTM D412): 107 psi
i. Elongation at Break (ASTM D412): 165%
j. Tear Strength (ASTM D624): 33.1 lb/in
k. Compression Deflection (ASTM D1667): 29.5 psi to 25% Compression
l. Compression Set (ASTM D395): 4.37% Permanent Set
m. Flammability (ASTM E648): Class 2
n. Flammability - Burning Pill Test (ASTM D2859): Pass

C. Free Weight Area: GenieMat FIT70 as manufactured by Pliteq, or equivalent acceptable to the Architect.

1. Texture and Appearance: Slightly textured surface. Non-porous granulated rubber surface with colored speckles
2. Color: As selected from the manufacturer's full line of standard and custom color blends
3. Dimension: Tile: 24” x 24” (610 mm x 610 mm)
4. Tolerance: +/- 1/8” (3 mm)
5. Thickness: 2-3/4” (nom. 70 mm)
6. Technical Data:
   a. Wear Surface Density (Durability): 53.6 lb/ft³ (859 kg/m³)
   b. Acoustical IF09-002 (ASTM E2179): < 125 GMAX < 700 HIC
   c. Rubber Deterioration/ Air Oven: (ASTM D573): No deterioration
   d. Freeze Thaw (ASTM C67): No deterioration
   e. Abrasion Resistance (ASTM C501): 77
   f. Slip Resistance (ASTM E303): 63 Dry, 72.25 Wet
   g. Slip Resistance (ASTM D2047): 0.6
   h. Tensile Strength (ASTM D412): 0.636 MPa
   i. Elongation at Break (ASTM D412): 35.3%
   j. Tear Strength (ASTM D624): 2.4 kN/m
   k. Peak Tear Load (ASTM D624): 54.1 N
   l. Flammability (ASTM E648): Class 2 Flammability - Burning Pill Test (ASTM D2859): Pass

PART 3 EXECUTION

3.1 PROJECT CONDITIONS

A. Install resilient sheet flooring after other finishing operations, including painting, have been completed.

B. Maintain 68 degrees F temperature continuously prior to, during and after installation, but for not less than 48 hours prior and after. Maintain a temperature of not less than 55 degrees F in areas where work is completed.

3.2 EXAMINATION

A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

B. Verify that finishes of substrates comply with tolerances and other requirements specified in other

Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient floor tile.

C. Testing Substrates

1. Relative Humidity Test (ASTM F2170) using in situ probes. Proceed with installation only after substrates have a maximum 75 percent relative humidity at center of slab.
   a. Indicate locations where test have been made.
2. Test for pH:
   a. Perform pH test to test for excessive alkalinity using a pH pencil or litmus paper and deionized water.
   b. A pH reading higher than 10 requires neutralization.
   c. Apply a solution of 10 percent muriatic acid and water with a mop.
   d. Allow the solution to thoroughly dry.
   e. Rinse the substrate with a mop using clean water, let thoroughly dry, and retest. Continue to neutralize until the pH level conforms with adhesive manufacturer’s requirements.
3. Bond Test:
   a. Perform adhesive bond test in each major area, minimum 1 per 1,000 square feet, prior to installation. Examine after 72 hours to determine whether bond is solid and no moisture is present. Do not proceed with work until results of bond test are acceptable.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 PREPARATION

A. Concrete Substrates:

1. Comply with ASTM F710 and manufacturer's recommendations for surface preparation.
   a. Remove substances incompatible with resilient flooring adhesive by method acceptable to manufacturer.
2. Verify that substrates are free of curing compounds, sealers, and hardeners.
3. Remove incompatible substances using mechanical methods recommended by manufacturer. Solvents are prohibited.
4. Joints such as expansion joints, contraction joints, isolation joints, or other moving joints shall not be filled with patching compound or covered with resilient flooring.
5. Fill cracks, holes, and depressions in substrates with trowel-grade leveling and patching compound complying with the following:
   a. Section 03 3000 - CAST-IN-PLACE CONCRETE.
   b. Manufacturer’s written recommendations.
6. Tolerance: Concrete shall be flat to within the equivalent of 3/16 inch in 10 feet, as described in ACI 117R.

B. Acclimatize flooring materials for Seventy two (72) hours in advance of installation.

C. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.4 RESILIENT FLOOR INSTALLATION

A. Comply with manufacturer's written instructions for installing resilient flooring.

B. Lay out resilient flooring from center marks established with principal walls, discounting minor offsets, so units at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths less than one half unit at perimeter.

1. Locate and orient custom inlay where indicated on the Drawings, or as directed by Architect.

C. Install flooring with visible grain in one direction, perpendicular to long axis of room unless noted otherwise.

D. Adhesive Setting Bed: Adhere resilient flooring to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

1. Apply only as much adhesive as can be covered within its allowable tack-time.

3.5 RESILIENT TILE INSTALLATION

A. Comply with the Pliteq GenieMat FIT Technical Installation Manual for procedures and techniques for re-bonded recycled rubber Sound Control Flooring installation.

B. Installation should not begin until all other trades are finished in the area.

C. Areas to receive the re-bonded recycled rubber Sound Control Flooring should be weather tight and maintained at a minimum uniform temperature of 65 deg F (18 deg C) for 48 hours before, during, and after the installation.

3.6 CLEANING AND PROTECTION

A. Comply with manufacturer's written instructions for cleaning and protection of resilient flooring.

B. Immediately after completing floor installation:

1. Remove adhesive and other blemishes from exposed surfaces.
2. Sweep and vacuum surfaces thoroughly.
3. Damp-mop surfaces to remove marks and soil.

C. Protection:

1. Protect newly installed flooring from foot traffic for 24 hours and rolling traffic, furniture and fixtures for 48 hours.
2. Protect floor from other trades as well as potential discoloration from certain chemicals such as oils, asphalt or bitumen.
3. If heavy rolling equipment is to be moved over a new floor in the first week, it is advisable to lay masonite on the flooring to protect the adhesive bond.
4. Floor protection (coasters) should be used under legs of heavy furniture. Cleaning can take place after the adhesive has cured (approximately 5-7 days following installation).

D. Joint Sealant: Apply sealant to resilient floor perimeter and around columns, at doorframes, and at other joints and penetrations.

E. Cover floor tile until Substantial Completion.

END OF SECTION

THIS PAGE INTENTIONALLY LEFT BLANK