096519- RESILIENT TILE FLOORING INCLUDING SOLID VINYL FLOOR TILE (SECTION 096519.23 – RESILIENT / VINYL TILE FLOORING)

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Resilient vinyl tile flooring

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Manufacturer Certifications:

1. Provide certification that accurately identifies the Original Equipment Manufacturer (OEM) of flooring furnished for this project including manufacturer's name, address and factory location.

    a. Suppliers of Private-Label flooring for this project must identify themselves as such and fully disclose the OEM information listed above.

    b. All "manufacturer" requirements in these specifications must be complied with by the OEM, including warranties, certifications, qualifications, product data, test results, environmental requirements, performance data, etc.

2. Provide ISO 9001 certification for the OEM of the specified products.

3. Provide ISO 14001 certification for the OEM of the specified products.

4. Provide OSHAS 18001 certification for the OEM of the specified products.

C. Shop Drawings: Showing installation details and locations of borders, patterns, locations of any floor inserts and any seams.

D. Samples:

1. Manufacturer's color chart for selection of available floors.

2. Color samples:

    a. Samples as requested.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data:

1. For a qualified resilient flooring Manufacturer.
2. For a qualified resilient flooring Installer.

1.4 CLOSEOUT SUBMITTALS

A. Submit three copies of the following:

1. Manufacturer maintenance instructions.
2. Manufacturer material warranty.
3. Installer installation warranty.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. ISO 9001 Certified.
2. ISO 14001 Certified.
3. OHSAS 18001 Certified.
4. At least ten years active experience in the manufacture and marketing of commercial resilient flooring.
5. A provider of authorized installer training.

B. Installer Qualifications:

1. At least five years experience in the installation of resilient flooring.
2. Experience on at least five projects of similar size, type and complexity as this project.
3. Employer of workers for this Project who are competent in techniques required by manufacturer for resilient flooring installation indicated.

C. Fire Test Characteristics: As determined by testing identical products according to ASTM E 648, Class 1, by a qualified testing agency acceptable to authorities having jurisdiction.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store flooring and installation materials in protected dry spaces, with ambient temperatures maintained within range recommended by manufacturer, but not less than 55 deg F (13 deg C) nor more than 85 deg F (29 deg C).

B. Store the indoor resilient tiles in an upright position on a smooth flat surface immediately upon delivery to Project.

1.7 FIELD CONDITIONS

A. Product Installation:

1. Maintain temperatures during installation within range recommended by manufacturer, but not less than 65 deg F (18 deg C) in spaces to receive flooring one week before installation, during installation, and one week after installation.

2. After installation, maintain temperatures within range recommended by manufacturer, but not less than 55 deg F (13 deg C) or more than 85 deg F (29 deg C).

3. Prohibit traffic during flooring installation and for at least 48 hours after flooring installation.

B. Install flooring only after other finishing work, including painting and overhead work, has been completed.

1.8 WARRANTY

A. Special Limited Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace flooring that fails within specified warranty period.

1. Material warranty must be direct from the product manufacturer.

   a. Material warranties from separate or third party insurance providers are not valid.

   b. Material warranties from private label distributors are not valid.

2. Failures include, but are not limited to, the following:

   a. Material manufacturing defects.

   b. Surface wear and deterioration to the point of wear-through.

   c. Failure due to substrate moisture exposure not exceeding 92 percent relative humidity when tested according to ASTM F2170.

3. Warranty Period:

   a. Contact StaticWorx for GroundLock Extreme Warranty details.

B. Special Limited Warranty: Installer's standard form in which installer agrees to repair or replace flooring that fails due to poor workmanship or faulty installation within the specified warranty period.

1. Warranty Period: Contact StaticWorx for details.

1.9 ENVIRONMENT AND INDOOR AIR QUALITY

A. LEED™ Documentation:

1. LEED v3 MR Credits: For products having recycled content, indicate percentage by weight of post-consumer and pre-consumer recycled content.

2. LEED v3 IEQ Credits: For adhesives and flooring, including a statement of VOC content.

3. LEED v4 MR Credit, Building Product Disclosure & Optimization, Sourcing of Raw Materials: For products having recycled content, indicate percentage by weight of post-consumer and pre-consumer recycled content.

4. LEED v4 EQ Credits: For adhesives and flooring, including a statement of VOC content, FloorScore certified.

B. Indoor Air Quality Certification:

1. Flooring products must be FloorScore® Certified.

a. FloorScore® certification proves compliance with the volatile organic compound emissions criteria of the California Section 01350 standard.

b. FloorScore® certification proves compliance with the testing and product requirements of the California Department of Health Services “Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers.”

c. FloorScore® documentation must include certificate number for specified product.

C. Manufacturer Certification of Environmental Procedures:

1. Original Equipment Manufacturer’s (OEM) ISO 14001 Certification.

1.10 COORDINATION

A. Coordinate layout and installation of flooring with other equipment.

PART 2 - PRODUCTS

2.1 COMMERCIAL RESILIENT/VINYL TILE FLOORING

A. Basis-of-Design Manufacture: Subject to compliance with requirements, provide StaticWorx GroundLock Extreme [insert design] Interlocking ESD tile flooring a 6mm thick modular tile with dovetail connections/ or straight seam for heat welding. Includes a reinforced 2mm thick wearlayer with pressed design, (2) fiberglass grids for extreme dimensional stability and 100% recycled interlayer and base. Protected by the Evercare surface treatment for No Wax maintenance.

If no substitutions will be accepted:

B. Substitution Limitations:

1. No substitutions.

If products from other manufacturers will be considered, insert the manufacture's name and the product name and/or model number:

B. Other Manufactures: Subject to compliance with all the requirements of this specification, provide products by one of the following:

1. [Insert flooring manufacturer name] : [Insert flooring product name/model].

If other manufacturers are allowed to submit requests for approval prior to bid:

B. Substitution Limitations:

1. All other manufacturers: Submit formal substitution request prior to bid in accordance with Section 012500 - "Substitution Procedures".
2. Approval by Architect of other manufacturers does not relieve Contractor of responsibility to provide products which comply with all requirements of this specification.

C. Product Description: Resilient / Vinyl Tile flooring as per ASTM F1700.

1. Overall Thickness: Not less than 0.24 inch (6.0 mm)
2. Wear-Layer Thickness: Not less than 0.08 inch (2.0 mm)
3. 100% REACH Compliant.
4. Applied Finish: Manufacturer's, factory-applied, permanent UV-cured.
    a. Basis-of-Design Product: StaticWorx Evercare
5. Tile Size: GroundLock Extreme 25.6" x 25.6" (650mm x 650mm)
   GroundLock UltraClean 25" x 25" (635mm x 635mm)
6. Color and Pattern:
    a. As selected by Owner from manufacturer's standard colors and patterns.

D. Performance Criteria:

1. Electrical Resistance: $2.5 \times 10^4 < Rt < 10^7\ \Omega$ as per ANSI/ESD STM 7.1
2. Static Electrical Propensity: < 100v as per ANSI/ESD 97.2
3. Protection Against Electrostatic Discharges: Fully Compliant as per ANSI/ESD S20.20
4. Maximum Static Load:
    a. ASTM F970: Meets requirements

5. Rolling Loads: ASTM F2753, 500 cycles @ 100lbs: Excellent, no change
6. Indentation Hardness: ASTM D2240, 95
7. Chemical & Stain Resistance: EN 423, OK
8. Coefficient of Friction: ASTM D2047, 0.80 (DRY) / 0.82 (WET)
9. Fire Performance: ASTM E 648; Class 1
10. Slab Moisture Design Tolerance:
    a. Maximum relative humidity of 92 percent when tested according to ASTM F 2170.
    b. Maximum moisture vapor emission rate of 10 pounds of water per 1,000 sq. ft. in 24 hours when tested according to ASTM F1869.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify the Following:

1. The area in which the indoor resilient tile flooring will be installed is dry, weather-tight and in compliance with specified requirements.
2. Permanent heat, lighting and ventilation systems are installed and operable.
3. Other work, including overhead work, that could cause damage, dirt, dust or otherwise interrupt installation has been completed or suspended.
4. No foreign materials or objects are present on the substrate and that it is clean and ready for preparation and installation.
5. Tests to verify that the moisture vapor emission rate or substrate relative humidity is within the specified ranges.
6. The concrete slab surface pH level is within the specified range.
7. The concrete slab surface deviation is no greater than 3/16 inch within 10 feet (4.5 mm within 3 m) as described in AC1117R.
8. The concrete slab complies with ACI 302.2R for concrete design including use of a low-permeance vapor barrier directly beneath the concrete subfloor with sealed penetrations.

3.2 PREPARATION

A. Prepare substrates according to manufacturer's written recommendations to ensure proper adhesion of resilient flooring system.

B. Concrete Substrates: Prepare according to ASTM F 710.

1. Verify that substrates are dry and free of sealers, curing compounds and other additives. Remove coatings and other substances that are incompatible with adhesives using mechanical methods recommended by manufacturer.

2. Alkalinity Testing: Perform pH testing according to ASTM F 710. Proceed with installation only if pH readings are between 7.0 and 8.5.

C. Moisture Testing: Perform ASTM F 2170 relative humidity test and proceed with installation only after substrates have maximum relative humidity of 92 percent.

D. Use trowelable concrete based leveling and patching compound with the same moisture vapor tolerance as the adhesive to fill depressions, holes, cracks, grooves or other irregularities in substrate.

E. Place flooring and installation materials into spaces where they will be installed at least 48 hours before installation. Install flooring materials only after they have reached the same temperature as space where they are to be installed.

F. Sand the surface of the concrete slab.

G. Sweep and then vacuum substrates immediately before installation. After cleaning, examine substrate for moisture, alkaline salts, grit, dust or other contamination. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 VINYL TILE FLOORING INSTALLATION

A. General:

1. Comply with resilient tile flooring manufacturer's installation instructions.

2. Take necessary precautions to minimize noise, odors, dust and inconvenience during installation.

3. Fit flooring neatly and tightly to vertical surfaces, equipment anchors, floor outlets, and other interruptions of floor surface.

4. Extend flooring into toe spaces, door reveals, closets, and similar openings unless otherwise indicated.

B. Lay out flooring per manufacturer’s recommendations.

3.4 CLEANING AND PROTECTION

A. Perform the following operations after completing resilient flooring installation:

1. Remove marks and blemishes from flooring surfaces.

2. Sweep and then vacuum flooring.

3. Damp-mop flooring to remove soiling.

B. Protect flooring from abrasions, indentations, and other damage from subsequent operations and placement of equipment, during remainder of construction period.