

CONSTRUCTION STANDARD SPECIFICATION

SECTION 09675

CONDUCTIVE RESILIENT FLOORING

	<u>Page</u>
PART 1 - GENERAL	2
1.01 SUMMARY	2
1.02 SUBMITTALS	2
1.03 QUALITY ASSURANCE	2
1.04 DELIVERY, STORAGE, AND HANDLING	3
1.05 PROJECT CONDITIONS	3
1.06 EXTRA MATERIALS	3
PART 2 - PRODUCTS	3
2.01 FLOOR COVERING	4
2.02 FLOOR ACCESSORIES	4
2.03 LEVELING COMPOUND	4
2.04 ADHESIVES	4
2.05 MISCELLANEOUS MATERIALS	4
PART 3 - EXECUTION	4
3.01 SUBFLOOR EXAMINATION	4
3.02 SUBFLOOR PREPARATION	5
3.03 INSTALLATION	5
3.04 FIELD QUALITY CONTROL	6
3.05 CLEANING	6

CONSTRUCTION STANDARD SPECIFICATION

SECTION 09675

CONDUCTIVE RESILIENT FLOORING

PART 1 - GENERAL

1.01 SUMMARY

Extent of conductive resilient floor covering work is shown and scheduled on drawings. Provide static conductive resilient flooring as a complete, integrated system of one manufacturer consisting of flooring tile, adhesive, and ground devices.

1.02 SUBMITTALS

- A. Manufacturer's product specifications and installation instructions for each floor tile material required. Include manufacturer's recommendations for cleaning and maintaining tile, including precautions against material and methods that may be detrimental to the finishes of the units.
- B. Material Safety Data Sheets (MSDS) for floor tile, adhesive, slab primer, and leveling compound.
- C. Product test reports on the flooring that show compliance with the requirements of UL 779, ASTM E 84, and NFPA 99.
- D. Installer experience qualification data.
- E. LEED Submittals:
 - 1. Credit EQ 4.1: Manufacturers' product data for installation adhesive and chemical-welding compound, including printed statement of VOC content.

1.03 QUALITY ASSURANCE

- A. Representative of the flooring manufacturer shall test the installed flooring and submit a written request to certify compliance with this specification, NFPA 99 and UL 779.

- B. Performance Requirements: Provide completed installation meeting the following requirements:
 - 1. Electrical Resistance: Take 5 or more readings in accordance with NFPA 99 at 50% RH and 70RF. Flooring shall have electrical resistance readings of 25,000 to 1,000,000 ohms between two electrodes per NFPA 99.
 - 2. Flame Spread: 25 or less when tested per ASTM E 84.
 - 3. Smoke Developed: 50 or less when tested per ASTM E 84.
 - 4. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm per ASTM E 648.
- C. All products used shall not contain asbestos fibers.

1.04 DELIVERY, STORAGE, AND HANDLING

Deliver and store materials in manufacturer's original unopened packages, clearly marked with identifying information. Store floor coverings and installation materials in dry spaces protected from weather.

1.05 PROJECT CONDITIONS

- A. Temperature: Store materials at minimum temperature of 75RF for at least 24 hours prior to installation. In spaces where floors are being installed, maintain at least 75RF from 48 hours before installation until 48 hours after installation.
- B. Ventilation: Follow MSDS for proper ventilation, or the manufacturer's recommendations, whichever is more conservative.
- C. Protection: Schedule resilient floor covering to minimize the amount of subsequent work that must be done in the area. When work must be done over resilient flooring, cover flooring with a suitable protective covering.

1.06 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Floor Tile: Furnish not less than 1 box for each 50 boxes or fraction thereof, of each color pattern and size of floor tile installed.
 - 2. Sheet Floor Covering: Furnish not less than [10 linear feet (3 linear m) for each 500 linear feet (152 linear m)] or fraction thereof, in roll form for each color, pattern, and type of sheet floor covering installed.

PART 2 - PRODUCTS

2.01 FLOOR COVERING

Provide floor covering conforming to Federal Specification S-T-312 for Type III (Vinyl) tile ASTM 1700, Class I and to other requirements as specified. Provide tile with color and pattern extending full thickness of tile and as selected by Sandia National Laboratories (SNL) from manufacturer's standard color line.

- A. Tile shall be 12" x 12" x 1/8" thick for conventional installation. Standard of quality shall be Conductile as manufactured by Vinyl Plastics, Inc. (VPI).
- B. Install 12" x 12" identification tiles containing the words "Conductive Floor, Do Not Wax" at the entrance to the room and where shown on the contract drawings. Color and pattern of tiles shall match the other tiles with lettering in a contrasting color.

2.02 FLOOR ACCESSORIES

- A. Base: Comply with Federal Specification SS-W-40. Base shall be 4" high topset coved, 0.080 gauge.
- B. Reducing Strips: Furnish vinyl or rubber reducing (edge) strips at all exposed edges of floor covering, no less than 1 inch wide with a beveled forward edge, of the same thickness as floor covering material. Furnish color to be compatible with floor tile.

2.03 LEVELING COMPOUND

Latex type as recommended by flooring manufacturer.

2.04 ADHESIVES

Use conductive adhesive as recommended by flooring manufacturer.

2.05 MISCELLANEOUS MATERIALS

Furnish concrete slab primers, and other materials as recommended in writing by the manufacturer of the resilient flooring.

PART 3 - EXECUTION

3.01 SUBFLOOR EXAMINATION

- A. Assure that subfloor presents a smooth, even plane suitable for installation of resilient flooring.
- B. Investigate concrete slab to determine moisture content and other conditions that might harmfully affect the finish floor.

- C. Assure that subfloor is clean and free of paint, oil, wax or other harmful materials.

3.02 SUBFLOOR PREPARATION

- A. Follow manufacturer's printed directions.
- B. Fill cracks, rough areas and similar surface defects with plastic material. Grind away high spots and fill depressions to establish smooth planes.
- C. Where fill depth exceeds 1/8 inch, apply underlayment in 1/8 inch layers, each layer feather-edged and allowed to set.
- D. Apply slab primer if recommended by manufacturer of floor covering, prior to application of adhesive, in compliance with manufacturer's printed directions.

3.03 INSTALLATION

Apply adhesives with notched trowels to maintain proper depth. Lay tile true to line and square. The entire undersurface of each tile shall be securely bonded. Fit borders accurately.

- A. Reference markers: Maintain reference markers, holes or openings that are in place or plainly marked for future cutting by repeating on the finish tile as marked in the subfloor.
- B. Laying Tile: Lay tile beginning at the center of each major room or space in a manner to minimize waste at the perimeter. Except where otherwise shown on the drawings, lay tile in a straight checkerboard pattern using a single color without feature strips or inserts.
 1. Tile shall be laid to a smooth uniform plane, free of raised or warped edges, with tight uniform joints.
 2. Joints which are open at any point in excess of 0.018" (feeler gauge) are not acceptable. Joints which are open along the full length in excess of 0.010" (feeler gauge) are not acceptable.
 3. Tile shall be accurately fitted to adjacent surfaces where not covered by coved base. Such fitted joints which are open in excess of 1/32" shall be sealed and such joints which are open in excess of 1/16" shall be re-fitted.
 4. Tile laid with corner intersections which open up in excess of 1/32" shall not be accepted and the tile relaid.
 5. Tile laid with edges which are raised or warped enough to catch a square cut 2 x 4 block when slid along the floor shall be replaced.
- C. Base: Set base with top edge tightly adhered to the wall surface along full length and with bottom edge in contact with the floor. Internal corners shall

be neatly cut and external corners carefully fitted and bent to the line of the wall. Use heat to facilitate bending base.

- D. Trim: Provide edge strips at exposed edges of resilient flooring as specified on contract drawings:
- E. Repair: Repair damaged areas as directed by the Sandia Delegated Representative (SDR).

3.04 FIELD QUALITY CONTROL

- A. Testing: Owner will engage a qualified independent testing and inspection agency to test electrical resistance of static-control resilient floor covering systems for compliance with requirements.
 - 1. Arrange for testing after installation adhesives have fully cured and floor covering systems have stabilized to ambient conditions.
 - 2. Arrange for testing of floor coverings before performing polish procedures.
- B. Remove and replace static-control floor coverings where test results indicate that they do not comply with specified requirements.
- C. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.05 CLEANING

During installation, promptly remove smears from the surface of floor covering materials. After installation is completed, thoroughly clean the floors in accordance with manufacturer's maintenance recommendations.

END OF SECTION