Johnsonite®
A Tarkett Company

Section 09.65.33

CONDUCTIVE RESILIENT FLOORING

THIS DOCUMENT IS INTENDED AS A SUGGESTED GUIDE FOR CREATING, MODIFYING, OR EDITING YOUR CSI FORMATTED 3-PART ARCHITECTURAL GUIDE SPECIFICATIONS.

JOHNSONITE WILL NOT BE LIABLE FOR ANY DAMAGES ARISING OUT OF THE USE OF ANY INFORMATION OR SPECIFICATIONS FOUND IN THIS DOCUMENT.

ENSURE THAT YOU HAVE THE LATEST PUBLICATION FOR THIS SPECIFICATION.

THE SPECIFIER OR DESIGNER IS RESPONSIBLE FOR PRODUCT SELECTION AND ACCURACY OF ALL PROJECT SPECIFICATIONS, INCLUDING ANY JOHNSONITE INFORMATION OR SPECIFICATIONS USED.

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. Conductive Resilient Flooring.

1.3 SUBMITTALS

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

B. LEED Submittals:

   1. Product Data for Credit EQ 4.1: For adhesives, include printed statement of VOC content and chemical components.

C. Samples for Initial Selection: For each type of product indicated.

D. Samples for Verification: For each type of product indicated, in manufacturer's standard-size samples of each resilient product color, texture, and pattern required.

E. Product Schedule: For resilient products. Use same designations indicated on Drawings.

1.4 QUALITY ASSURANCE

A. Mockups: Provide resilient products with mockups specified in other Sections.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by Johnsonite, but not less than 55 deg F (13 deg C) or more than 85 deg F (29 deg C).

1.6 PROJECT CONDITIONS

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

B. Maintain ambient temperatures within range recommended by Johnsonite, but not less than 65 deg F (18 deg C) or more than 85 deg F (29 deg C) in spaces to receive resilient products during the following time periods:
   1. 48 hours before installation.
   2. During installation.
   3. 48 hours after installation.

C. Maintain the ambient relative humidity between 40% and 60% during installation.

D. Until Substantial Completion, maintain ambient temperatures within range recommended by Johnsonite, but not less than 55 deg F (13 deg C) or more than 85 deg F (29 deg C).

PART 2 - PRODUCTS

2.1 CONDUCTIVE RESILIENT FLOORING

Manufacturer:

Johnsonite, Inc.	Phone:	(800) 899-8916
16910 Munn Road		(440) 543-8916
Chagrin Falls, Ohio 44023	Tech:	Ext 9297
Web: www.tarkettna.com	Samples:	Ext 9299
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CONDUCTIVE RESILIENT FLOORING

ENVIRONMENTAL SUSTAINABILITY NOTES:

Johnsonite Conductive Resilient Flooring

- Johnsonite offers a RESTART reclamation program for returning jobsite scrap
- Contains 25% pre-consumer recycled content
- 100% Recyclable
- Phthalate-free (except for recycled materials)
- SCS FloorScore® Certified and meets California Specifications Section 01350
- Johnsonite facilities are ISO 9001 and ISO 14001 Certified
- LEED contributions for Conductive resilient flooring include MR2; MR4; and EQ4.3
- For all environmental sustainability information visit ecoScorecard on Johnsonite home page at www.tarkettna.com

A. Conductive Resilient Sheet Flooring

1. [TORO SC] Specify – Conductive Resilient Flooring with the following physical characteristics:
   a. Complies with requirements for ASTM F 1913 Standard Specification for Vinyl Sheet Floor Covering Without Backing.
   b. Backing coated with pure carbon for increased and consistent conductivity
   c. Roll/Sheet Width: 6' 6" (2 m).
   d. Wear layer/Overall thickness: .080" (2.0 mm).
   e. ASTM D 2047, Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring of 0.5 or greater.
   f. ASTM F 970, Standard Test Method for Static Load Limit – 250 PSI
   g. ASTM E 648, Standard Test method for Critical Radiant Flux of 0.45 watts/cm^2 or greater, Class I.
   h. <u>ANSI/ESD S7.1 (S20.20, < 3.5 x 10^7 ohms)</u>: 2.4 x 10^6, 12% RH, tested surface to ground.
   i. <u>Meet OSHA/NFPA (> 2.5 x 10^4 ohms):</u> 2.3 x 10^6 ohms
   j. <u>Meet ASTM F 150, 10^6 to 10^9 ohms (50% RH, 100v):</u> 2.3 x 10^6 ohms, dissipative
   k. <u>ESD-approval (IEC 61340 / 100v)</u>: 10^4 to 10^8
   l. Johnsonite offers a RESTART reclamation program for returning jobsite scrap.
   m. Contains 25% pre-consumer recycled content.
   n. 100% Recyclable.
   o. Phthalate-free *(except for recycled materials)*
   p. SCS FloorScore® Certified and meets California Specifications Section 01250.
   q. Johnsonite facilities are ISO 9001 and ISO 14001 Certified.
   r. LEED contributions for Conductive resilient flooring include MR2; MR4; and EQ4.3.

- For TORO SC Rolls specify (TOR-R ____ [Specify color by number and name])

B. Conductive Resilient Tile Flooring

1. [TORO SC] Specify – Conductive Resilient Tile Flooring with the following physical characteristics:
   a. Complies with requirements for ASTM F 1700 Standard Specification for Solid Vinyl Tile.
   b. Backing coated with pure carbon for increased and consistent conductivity.
   c. Tile size: 24" X 24" (61 X 61 cm).
   d. Wear layer/Overall thickness: .080" (2.0 mm).
   e. ASTM D 2047, Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring of 0.5 or greater.
   f. ASTM F 970, Standard Test Method for Static Load Limit – 250 PSI.
   g. ASTM E 648, Standard Test method for Critical Radiant Flux of 0.45 watts/cm^2 or greater, Class I.
   h. <u>ANSI/ESD S7.1 (S20.20, < 3.5 x 10^7 ohms)</u>: 2.4 x 10^6, 12% RH, tested surface to ground.
   i. <u>Meet OSHA/NFPA (> 2.5 x 10^4 ohms):</u> 2.3 x 10^6 ohms
   j. <u>Meet ASTM F 150, 10^6 to 10^9 ohms (50% RH, 100v):</u> 2.3 x 10^6 ohms, dissipative
   k. <u>ESD-approval (IEC 61340 / 100v)</u>: 10^4 to 10^8
   l. Johnsonite offers a RESTART reclamation program for returning jobsite scrap.
   m. Contains 25% pre-consumer recycled content.
   n. 100% Recyclable.
   o. Phthalate-free *(except for recycled materials)*
   p. SCS FloorScore® Certified and meets California Specifications Section 01250.
   q. Johnsonite facilities are ISO 9001 and ISO 14001 Certified.
   r. LEED contributions for Conductive resilient flooring include MR2; MR4; and EQ4.3.

- For TORO SC Tile specify (TOR-T ____ [Specify color by number and name])

2.2 INSTALLATION MATERIALS

A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland cement based or blended hydraulic-cement-based formulation.

B. Adhesives: As recommended by Johnsonite to meet site conditions.

1. Johnsonite #925 Adhesive for Resilient Sheet Flooring (906 Conductive adhesive required on copper grounding strips).
2. Johnsonite #906 Conductive Adhesive (Applied on copper grounding strips for sheet installation, full spread application for tiles).
3. Johnsonite #975 Two-part Urethane Adhesive for Resilient Sheet Flooring (For use with heavy point loads).
4. Johnsonite copper grounding strips.

PART 3 - EXECUTION

3.1 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 products.

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

3.2 PREPARATION

A. Prepare substrates according to Johnsonite written instructions to ensure adhesion of Conductive Resilient Flooring.
   1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
   2. Remove substrate paint, coatings and other substances that are incompatible with adhesives or contain soap, wax, oil, solvents, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
   3. Mechanically remove contamination on the substrate that may cause damage to the Conductive Resilient Flooring material. Permanent and non-permanent markers, pens, crayons, paint, etc., must not be used to write on the back of the flooring material or used to mark the substrate as they could bleed through and stain the flooring material.
   4. Prepare Substrates according to ASTM F 710 including the following:
      a. Moisture Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
         1) Perform anhydrous calcium chloride test, ASTM F 1869. Results must not exceed 5 lbs. Moisture Vapor Emission Rate per 1,000 sq. ft. in 24 hours.

            – or –

         2) Perform relative humidity test using in situ probes, ASTM F 2170. Must not exceed 80%.
      b. A pH test for alkalinity must be conducted. Results should range between 7 and 9. If the test results are not within the acceptable range of 7 to 9, the installation must not proceed until the problem has been corrected.
      c. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer.
   5. Wood subfloors must have a minimum 18" (45.7 cm) of cross-ventilated space beneath the bottom of the joist.
      a. The floor must be rigid, free of movement.
      b. Single wood and tongue and groove subfloors should be covered with ¼" (6.4 mm) or ½" (12.7 mm) APA approved underlayment plywood.
         1) Use ¼" (6.4 mm) thick underlayment panels for boards with a face width of 3" (76 mm) or less.
         2) Use ½" (12.7 mm) thick underlayment panels for boards with a face width wider than 3" (76 mm).
      c. Do not install over OSB (Oriented Strand Board), particle board, chipboard, lauan or composite type underlayments.

B. Fill cracks, holes, depressions and irregularities in the substrate with good quality Portland cement based underlayment leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.

C. Floor covering shall not be installed over expansion joints.

D. Do not install resilient products until they are same temperature as the space where they are to be installed.
   1. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.

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

3.3 FLOORING INSTALLATION

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

B. Conductive Resilient Flooring :
   1. Install with Johnsonite adhesive as recommended in Johnsonite Electrostatic Installation Instructions and specified for the site conditions and follow adhesive label for proper use.
   2. Install with Johnsonite copper grounding strips per Johnsonite installation instructions.
   3. Install rolls in sequential order following roll numbers on the labels.
   4. Reverse sheets unless instructed otherwise in Johnsonite Installation Instructions.
   5. Roll the flooring in both directions using a 100 pound three-section roller.
   6. Conductive Resilient Sheet Flooring must be welded.
      Note: It is recommended to heat weld seams to provide a more sterile and water tight seam.
   7. Conductive Resilient Flooring Tile does not require welded seams.
   8. Johnsonite Conductive Resilient Sheet Flooring may be flash coved.
      a. Use Johnsonite CFS-000-A Cove Filler Strip.
      b. Net fit flooring material into the appropriate Johnsonite cove cap.

3.4 CLEANING AND PROTECTION

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

B. Perform the following operations immediately after completing resilient product 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. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
   1. No traffic for 24 hours after installation.
   2. No heavy traffic, rolling loads, or furniture placement for 72 hours after installation.

D. Wait 72 hours after installation before performing initial cleaning.

E. A regular maintenance program must be started after the initial cleaning.

END OF SECTION 09.65.33