

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Rubber sheet flooring.
 - 2. Rubber base.

1.2 RELATED SECTIONS

- A. See Section 03 53 00 'Concrete Topping' for floor underlayment and leveling required in all project areas receiving new rubber sheet flooring.

1.3 SYSTEM DESCRIPTION

- A. Fire Resistance Requirements:
 - 1. Fire: Critical Radiant Flux of 0.45 watts/cm² or more per NFPA 253 or ASTM E 648.
 - 2. Smoke Density: NBS Smoke of 450 or less per ASTM E 662.

1.4 SUBMITTALS

- A. Comply with requirements of Section 01 33 00 – Submittal Procedures.
- B. Product Data: Manufacturer's product data and installation instructions.
- C. Samples: Submit samples of each type, color and pattern of resilient flooring and accessories; and 2-1/2 inches (63 mm) long for accessories.
- D. Maintenance instructions for each type of flooring.
- E. Seaming diagram.

1.5 EXTRA MATERIALS

- A. Furnish extra materials that match products installed.
 - 1. Package with protective coverings for storage.
 - 2. Label each package or container with manufacturer's name, brand, color, and room locations.
- B. Quantities:
 - 1. Rubber sheet flooring: Furnish quantity not less than 10 linear feet for every 500 linear feet or fraction thereof, in roll form and in full roll width for each color, pattern, and type of floor covering installed.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for floor covering installation and seaming method indicated.
 - 1. Engage an installer who employs workers for this Project who are trained or certified by floor covering manufacturer for installation techniques required.
 - a. Installer Qualifications: Certified by manufacturer of resilient flooring or INSTALL (International Standards & Training Alliance) resilient certified for the requirements of the project.
 - b. Proof of installer certification will be required by Owner.
 - 2. A technical representative from manufacturer shall attend a pre-installation meeting with flooring installer to review installation methods for dry tape installation method.

PART 2 – PRODUCTS

2.1 RUBBER SHEET FLOOR COVERING

- A. Basis of Design Product: Nora Systems Inc., Freudenberg Building Systems, Inc. 'Noraplan Environcare'
 - 1. Or Approved Equal.
 - 2. Unbacked Rubber Sheet Floor Covering: 0.12 inch (3.0 mm) thick.
 - 3. Wearing Surface: Slip resistant
 - 4. Size: Manufacturers standard
 - 5. Seaming Method: Heat welded
 - 6. Colors and Patterns: As indicated in Drawings.

2.2 RUBBER WALL BASE

- A. Rubber Wall Base: FS SS-W-40, Type I, and complying with requirements specified as follows:
- B. Manufacturer:
 - 1. Roppe,
 - 2. Johnsonite,
 - 3. Flexco
 - 4. or Approved Equal.
- C. Product: Topset base
- D. Size: As indicated in Drawings.
- E. Colors: As indicated in Drawings.

2.3 RUBBER MOLDING ACCESSORIES

- A. Rubber Wall Base: Subject to compliance with requirements provide products by one of the following:

- B. Manufacturer:
 - 1. Roppe,
 - 2. Johnsonite,
 - 3. Flexco
 - 4. or Approved Equal.
- C. Product: Rubber reducer strip for resilient flooring and transition strips.
- D. Profile and dimensions as required for smooth transition between flooring materials.
- E. Colors: As selected by owner from full range of industry colors.

2.4 INSTALLATION ACCESSORIES

- A. Concrete Slab Primer: Non-staining type as recommended by flooring manufacturer.
- B. Underlayments and Patching Compounds: Trowelable latex-modified portland cement based floor fill and latex crack filler provided or approved by flooring manufacturer for applications indicated.
- C. Adhesives:
 - 1. Normal Use: Water-resistant type recommended by manufacturer to suit resilient flooring product and substrate conditions.
 - 2. Rubber Sheet Adhesive: Dryfix Tape System manufactured by Nora Systems.
- D. Seamless-Installation Accessories:
 - 1. Heat-Welding Bead: Manufacturer's solid-strand product for heat welding seams
 - 2. Cold Welding Bead: Manufacturer's standard product for cold welding seams.
 - 3. Color: Match floor covering or as noted on drawings\

PART 3 – EXECUTION

3.1 PREPARATION

- A. Inspect the existing concrete floor substrates and topping compounds applied under this Contract to assure acceptable conditions prior to installation. Commencement of installation work constitutes acceptance of existing conditions.
- B. Prepare substrates according to manufacturer's written instructions to ensure adhesion of floor coverings.
- C. Concrete Substrates: Prepare according to ASTM F 710.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
 - 3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
 - 4. Moisture Testing: Perform tests recommended by manufacturer and as follows. Proceed with installation only after substrates pass testing.

- a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. (1.36 kg of water/92.9 sq. m) in 24 hours.
- b. Perform relative humidity test using in situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum 75 percent relative humidity level measurement.
- c. Level all areas to receive new Rubber Sheet Flooring with trowelable concrete floor topping to produce a uniform and smooth substrate.
- d. Do not install floor coverings until they are same temperature as space where they are to be installed.
- e. Move floor coverings and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
- f. Sweep and vacuum clean substrates to be covered by floor coverings immediately before installation.

3.2 INSTALLATION: RUBBER SHEET FLOORING

- A. Comply with manufacturer's written instructions for installing floor coverings.
- B. Unroll floor coverings and allow them to stabilize before cutting and fitting.
- C. Lay out floor coverings as follows:
 1. Maintain uniformity of floor covering direction.
 2. Minimize number of seams; place seams in inconspicuous and low-traffic areas, at least 6 inches (152 mm) away from parallel joints in floor covering substrates.
 3. Match edges of floor coverings for color shading at seams. Avoid cross seams.
 - a. Scribe and cut floor coverings to butt neatly and tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, and door frames.
 - b. Extend floor coverings into toe spaces, door reveals, closets, and similar openings.
 - c. Maintain reference markers, holes, or openings that are in place or marked for future cutting by repeating on floor coverings as marked on substrates. Use chalk or other nonpermanent marking device.
 - d. Install floor coverings on covers for telephone and electrical ducts and similar items in installation areas. Maintain overall continuity of color and pattern between pieces of floor coverings installed on covers and adjoining floor covering. Tightly adhere floor covering edges to substrates that abut covers and to cover perimeters.
 - e. Adhere floor coverings to 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.

3.3 SEAMLESS INSTALLATION

- A. Heat-Welded and Cold-Welded Seams: Comply with ASTM F 1516. Rout joints and use welding bead to permanently fuse sections into a seamless floor covering. Prepare, weld, and finish seams to produce surfaces flush with adjoining floor covering surfaces.

3.4 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of floor coverings.
- B. Perform the following operations immediately after completing floor covering installation:
- C. Remove adhesive and other blemishes from floor covering surfaces.
- D. Sweep and vacuum floor coverings thoroughly.
- E. Damp-mop floor coverings to remove marks and soil.
- F. Protect floor coverings from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- G. Rubber flooring initial maintenance (post installation) provided by Contractor:
- H. The initial cleaning process is mandatory to remove a factory film that is present to protect the surface during installation and handling. If this process is not completed satisfactorily the floor will have a dirty appearance and must be replaced at Contractor's expense.
- I. Clean floor surface after adhesive has fully cured, no sooner than 72 hours after installation. Clean surfaces in accordance with manufacturer's requirements for initial cleaning as follows:
 - 1. Vacuum floor to remove dirt or grit, including all seams and corners.
 - 2. Remove adhesive residue.
 - 3. Apply manufacturer recommended stripper with clean mop to floor area. Allow solution to dwell a minimum of 10 minutes. Dilution: 2-4 ounces per gallon of lukewarm water.
 - 4. Scrub the floor thoroughly with a floor side to side scrubber machine using a 3M 5100 pad or equal. Be sure to scrub entire floor surface area.
 - 5. Wet vacuum the soiled solution, rinse the floor with clean water and allow to dry.
 - 6. Do not wax.
- J. Final Protection: Cover resilient floor surface with nonstaining building paper until Substantial Completion in each area.

END OF SECTION