

ARCHITECTURAL GUIDE SPECIFICATIONS - DESCRIPTIVE

Mannington Mills, Inc.

Mannington Reset Recycled Rubber Commercial Flooring

Section 096516 – Resilient Sheet Flooring

Section 096519 – Resilient Tile

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RESILIENT SHEET FLOORING
RESILIENT FLOOR TILE

PART 1 GENERAL

1.01 THIS SECTION INCLUDES

- A. Flooring and accessories as shown on the drawings and schedules and as indicated by the requirements of this section.

1.02 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract (including General and Supplementary Conditions and Division 1 sections) apply to the work of this section.
- B. ASTM F 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
- C. ASTM F 1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride
- D. ASTM F 2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using *In situ* Probes

1.03 RELATED SECTIONS

- A. Other Division 9 sections for floor finishes related to this section but not the work of this section.
- B. Division 3 Concrete; not the work of this section.
- C. Division 6 Wood and Plastics; not the work of this section.
- D. Division 7 Thermal and Moisture Protection; not the work of this section.

1.04 QUALITY ASSURANCE AND REGULATORY REQUIREMENTS

- A. Select an installer who is competent in the installation of rubber flooring and using Mannington Reset Recycled Rubber Commercial Flooring .
- B. If required, provide type of flooring and accessories supplied by one manufacturer, including leveling, patching compounds, and adhesives.

1.05 SUBMITTALS

- A. Submit shop drawings, seaming plan, coving details, and manufacturer's technical data, installation and maintenance instructions.
- B. Submit the manufacturer's standard samples showing the required colors for flooring and applicable accessories.

1.06 ENVIRONMENTAL CONDITIONS

- A. Deliver materials in good condition to the jobsite in the manufacturer's original unopened containers that bear the name and brand of the manufacturer, project identification, and shipping and handling instructions.
- B. Store materials in a clean, dry, enclosed space off the ground, and protected from the weather and from extremes of heat and cold. Protect adhesives from freezing. Store flooring, adhesives and accessories in the spaces where they will be installed for at least 48 hours before beginning installation.

- C. Maintain a minimum temperature in the spaces to receive the flooring and accessories of 65°F (18°C) and a maximum temperature of 85°F (29°C) for at least 48 hours before, during, and for not less than 48 hours after installation. Thereafter, maintain a minimum temperature of 55°F (13°C) in areas where work is completed. Protect all materials from the direct flow of heat from hot-air registers, radiators, or other heating fixtures and appliances.
- D. Install flooring and accessories after the other finishing operations, including painting, have been completed. Close spaces to traffic during the installation of the flooring. Do not install flooring over concrete slabs until they are sufficiently dry to achieve a bond with the adhesive, in accordance with the manufacturer's recommended bond and moisture tests.

PART 2 PRODUCTS

2.01 RESILIENT FLOORING MATERIALS

Provide Mannington Reset Recycled Rubber Commercial Flooring supplied by Mannington Mills, Inc. in [insert color name] [color selected from the range currently available],

- A. Product Name: The non-laminated, single-ply, rubber surface furnished under this specification shall be Mannington's Reset Recycled Rubber Commercial Flooring.
- B. Material: Made from high percentage of ground post-consumer recycled tires (72 – 91%) depending upon color or sku. The black color is 91%. There is a minimum of 4% pre-consumer recycled content for the colorations utilizing color flecks, in addition to the post-consumer recycled content. This comes from the reprocessed, pre-consumer EPDM rubber used as color flecks.
- C. Sheet Dimension: Mannington Reset rolled rubber surface will have an overall thickness of 3/8" (9 mm) standard supplied in 4' X 50' (1.2 m X 15.24 m) roll size.
- D. Sheet Weight: 2.3 lb/ft² (11.2 kg/m²). Roll Weight 400 lbs (181.47 kg)
- E. Sheet Standard Tolerances:
 - Roll width: ± 0.010"
 - Roll length: +1% - 0"
 - Thickness: ± 0.3 mm
- F. Interlocking Tile Dimension: Mannington Reset Recycled Rubber tile products shall be: 18" x 18" (457.2 mm x 457.2 mm) square edged or 24" x 24" (609.6 mm x 609.2 mm) tab-to-tab interlocking tile. Thickness 3/8" (9 mm).
- G. Tile Weight: 4.37 lbs/tile (1.98 kg/tile) for 18" x 18" (457.2 mm x 457.2 mm) square edged tile. 8 lbs/tile (3.63 kg/tile) for 24" x 24" (609.6 mm X 609.2 mm) Interlocking tile
- H. Standard Tolerances: Thickness: ± .3 mm
- I. Colors: Specify color from manufacturer's standard colors or custom colors.
- J. Tensile Strength (ASTM D 412): Min. 200 psi
- K. Flexibility (ASTM F 137): Pass 2" Mandrel
- L. Static Load Limit: 400 psi
- M. Coefficient of Friction: > 0.8 (Meets ADA Guidelines)

N. Chemical Resistance: (ASTM F925) - No Change

70% Isopropyl Alcohol

5% Sodium Hydroxide

5% Hydrochloric Acid:

5% Ammonia:

Bleach:

5% Phenol:

Sulfuric Acid:

O. Thermal Conductivity: approximately 0.4 Btu-in/hr- ft²-°F (ASTM C518)

P. VOC: Certified under FloorScore as low-emitting

Q. CHPS/CA 01350: Meets criteria as low-emitting

NO SUBSTITUTIONS

2.02 WALL BASE MATERIALS

- A. For top set wall base: Provide [0.080 in. (2.0 mm)] [1/8 in. (3.2 mm)] thick, [2 1/2 in. (6.35 cm)] [4 in. (10.16 cm)] [6 in. (15.24 cm)] high wall base with a matte finish, conforming to ASTM F 1861, [Type TV - Vinyl, Thermoplastic] [Type TP - Rubber, Thermoplastic], Group 2 - Layered, [Style A – Straight] [Style B – Cove].

2.03 ADHESIVES

- A. Provide MR-710, Mannington's recommended one-component moisture-cured polyurethane adhesive or Mannington MR 721 Two Component Epoxy Adhesive for use under the Mannington Reset Recycled Rubber Commercial Sheet Flooring and Square Edged Tile. Wall Base Adhesive use adhesive as recommended by the manufacturer of the Wall Base.

2.04 ACCESSORIES

- A. For patching, smoothing, and leveling monolithic subfloors (concrete, terrazzo, quarry tile, ceramic tile, and certain metals), provide Portland cement-based latex underlayment or MVP 2023 patch and skim coat as recommended by the resilient flooring manufacturer.
- B. For sealing joints between the top of wall base or integral cove cap and irregular wall surfaces such as masonry, provide plastic filler applied according to the manufacturer's recommendations.
- C. Provide top edge trim caps of plastic or anodized aluminum (plastic zero reducer) for integral flash cove as approved by the architect.
- D. Provide transition / reducing strips tapered to meet abutting materials.
- E. Provide threshold of thickness and width as shown on the drawings.
- F. Provide resilient edge strips of width shown on the drawings, of equal gauge to the flooring, homogeneous vinyl or rubber composition, tapered or bull nose edge, with color to match or contrast with the flooring, or as selected by the architect from standard colors available.
- G. Provide metal edge strips of width shown on the drawings and of required thickness to protect exposed edges of the flooring. Provide units of maximum available length to minimize the number of joints. Use butt-type metal edge strips for concealed anchorage, or overlap-type metal edge strips for exposed anchorage. Unless otherwise shown, provide strips made of extruded aluminum with a mill finish.

PART 3 EXECUTION

3.01 INSPECTION

- A. Examine subfloors prior to installation to determine that surfaces are smooth and free from cracks, holes, ridges, and other defects that might prevent adhesive bond or impair durability or appearance of the flooring material.
- B. Inspect subfloors prior to installation to determine that surfaces are free from curing, sealing, parting and hardening compounds; residual adhesives; adhesive removers; and other foreign materials that might prevent adhesive bond. Visually inspect for evidence of moisture, alkaline salts, carbonation, dusting, mold, or mildew.
- C. Report conditions contrary to contract requirements that would prevent a proper installation. Do not proceed with the installation until unsatisfactory conditions have been corrected.
- D. Failure to call attention to defects or imperfections will be construed as acceptance and approval of the subfloor. Installation indicates acceptance of substrates with regard to conditions existing at the time of installation.

3.02 PREPARATION

- A. Smooth concrete surfaces, removing rough areas, projections, ridges, and bumps, and filling low spots, control or construction joints, and other defects with MVP 2023 portland cement-based latex underlayment or patch and skim coat as recommended by the flooring manufacturer.
- B. Remove paint, varnish, oils, release agents, sealers and waxes. Remove residual adhesives as recommended by the flooring manufacturer. Remove curing and hardening compounds not compatible with the adhesives used, as indicated by a bond test or by the compound manufacturer's recommendations for flooring. Avoid organic solvents.
- C. Perform subfloor moisture testing using either Calcium Chloride Test (ASTM F 1869) [3 lb per 100 sq-ft/24h MVER or less] or % RH (ASTM F 2170) [$< 75\%$ RH], along with Bond Tests as described in ASTM F 710 and Mannington's Professional Installation Handbook to determine if surfaces are dry; free of curing and hardening compounds, old adhesive, and other coatings; and ready to receive flooring.
- D. Vacuum or broom-clean surfaces to be covered immediately before the application of flooring. Make subfloor free from dust, dirt, grease, and all foreign materials.

3.03 INSTALLATION OF FLOORING – Sheet

- A. Install flooring in strict accordance with the manufacturer's written instructions.
- B. Install flooring wall to wall before the installation of floor-set cabinets, casework, furniture, equipment, movable partitions, etc. Extend flooring into toe spaces, door recesses, closets, and similar openings as shown on the drawings.
- C. If required, install flooring on pan-type floor access covers. Maintain continuity of color and pattern within pieces of flooring installed on these covers. Adhere flooring to the subfloor around covers and to covers.
- D. Scribe, cut, and fit to permanent fixtures, columns, walls, partitions, pipes, outlets, and built-in furniture and cabinets.
- E. For sheet product adhere flooring to the subfloor without cracks, voids, raising and puckering at the seams. Roll with a 100-pound (45.36 kilogram) roller in the field areas. Hand-roll flooring at the perimeter and the seams to assure adhesion. Refer to specific rolling instructions of the flooring manufacturer.
- F. Lay flooring to provide a minimum number of seams. Avoid cross seams, filler pieces, and strips. Match edges for color shading and pattern at the seams in compliance with the manufacturer's recommendations.

- G. Install flooring with adhesives, tools, and procedures in strict accordance with the manufacturer's written instructions. Observe the recommended adhesive trowel notching, open times, and working times.

3.04 INSTALLATION OF FLOORING – 18" x 18" (457.2 mm x 457.2 mm) Square Edged Tile

A. Refer to Subfloor and Installation requirements before beginning.

B. Inspect all tiles for visual defects including shade variances prior to beginning installation. No labor claim will be honored on material installed with visual defects or shade variations. Any discrepancies must be reported immediately before beginning the installation.

C. Reset tiles must also be installed in the same direction. (Directional markings stamped on the bottom of the tiles must point in the same direction.)

D Begin application of MR-710, Mannington's recommended one-component moisture-cured polyurethane adhesive or Mannington's MR-725 two-part urethane adhesive. Apply MR-710 to the substrate using a 1/16" x 1/16" x 1/16" square-notched trowel. Apply MR-725 to the substrate using a 1/16" x 1/16" x 1/16" square-notched trowel.

E. Take care not to spread more adhesive than can be covered with flooring within 30 minutes. The open time of the adhesive is 30–40 minutes at 70°F and 50% relative humidity.

F. Place the first, tile A, into the wet adhesive making sure that the edges are precisely placed along the chalk lines and where they intersect. Press firmly on the tiles to remove any curls or entrapped air. Reminder: Arrows on bottom of tiles must point in the same direction.

G. Do not allow MR-710 or MR-725 to cure on your hands or the flooring. Wipe off excess adhesive with a rag dampened with mineral spirits. Cured adhesive is very difficult to remove from hands. We strongly suggest wearing gloves when using MR-710 or MR-725.

H. Roll a 100 lb. roller over the floor within 45 minutes to ensure a proper transfer of adhesive. Overlap each pass of the roller by 50% of the previous pass to ensure that the floor is properly rolled. A hand roller is recommended at the seams.

I. Keep traffic off the floor for a minimum of 24 hours; floor should be kept free from rolling loads for a minimum of 48-72 hours. Foot traffic and rolling loads can cause permanent indentations or dis-bonding in the uncured adhesive and cause tiles to shift

3.05 INSTALLATION OF FLOORING – 24" x 24"(609.6 mm X 609.2 mm) Interlocking tile

Reset Interlocking Tile does not require any specialty tools. The installation is a floating installation and does not require use of the MR 10 adhesive. It is very important to understand that the tiles are designed to fit together only in certain way. They cannot be assembled randomly.

A - Decide Tile Layout --Reset Interlocking Tile may be laid in straight rows and columns. Another option is to lay the tile in an "Ashlar" or brick pattern by offsetting either the rows or the columns by 50%. In other words, the tile can be laid "point to point" or in the offset "Ashlar" method. There is some locking benefit to the offset "Ashlar" brick pattern.

B- Lay Tiles

Place the first tile at the center of the room where the two lines intersect. Place the tile such that the inside of the dovetail is aligned to both the width and length line. Refer to Step One for proper tile orientation. Place the second tile on the opposite side of one of the lines.

Position the tile such that the pattern of the two small center tabs (two large and two small) are in the same relative positions as the first tile. Align the dovetail patterns and press together with your thumbs. Complete the process by hitting the seam area with a rubber mallet.

The third tile may be positioned either with the inside of the dovetail aligned to the other line aligning with one of the tiles, or such that 1/2 of the tile locks with the first tile and 1/2 locks with the second tile.

C. Remember that with every tile you must repeat the relative position of the center tabs (two large and two small). Continue laying tiles in all directions until there is not enough room to lay any more full tiles within the space to be filled. There should be a space of at least 6" on all four sides of the room.

3.06 INSTALLATION OF ACCESSORIES

- A. Apply top set wall base to walls, columns, casework, and other permanent fixtures in areas where top-set base is required. Install base in lengths as long as practical, with inside corners fabricated from base materials that are mitered or coped. Tightly bond base to vertical substrate with continuous contact at horizontal and vertical surfaces.
- B. Fill voids with plastic filler along the top edge of the resilient wall base or integral cove cap on masonry surfaces or other similar irregular substrates.
- C. Place resilient edge strips tightly butted to flooring, and secure with adhesive recommended by the edge strip manufacturer. Install edge strips at edges of flooring that would otherwise be exposed.
- D. Apply (butt-type) (overlap) metal edge strips where shown on the drawings, (before) (after) flooring installation. Secure units to the substrate, complying with the edge strip manufacturer's recommendations.

3.07 CLEANING AND PROTECTION

- A. Perform initial maintenance according to the latest edition of the manufacturer's maintenance and warranty literature.
- B. Protect installed flooring as recommended by the flooring manufacturer against damage from rolling loads, other trades, or the placement of fixtures and furnishings.