

SECTION 09 6516
RESILIENT SHEET FLOORING

PART 1 GENERAL

1.1 SUMMARY

- A. Work of this Section includes but is not limited to the following:
 - 1. Recycled vinyl sheet flooring.
 - 2. Accessories.
- B. Related Documents and Sections: Examine Contract Documents for requirements that directly affect or are affected by Work of this Section. A list of those Documents and Sections include, but is not limited to the following:
 - 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and General Requirements.
 - 2. Section 03 3000 - CAST-IN-PLACE CONCRETE.
 - 3. Section 09 6566 - RESILIENT ATHLETIC FLOORING.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For each type of floor covering. Include floor covering layouts, locations of seams, edges, floor drains, columns, doorways and cutouts.
 - 1. Show details of special patterns.
- C. Samples for Initial Selection: For each type of floor covering indicated.
- D. Samples for Verification: In manufacturer's standard size, but not less than 6 inch by 9 inch sections of each different color and pattern of floor covering required.
- E. Qualification Data: For qualified Installer.
- F. Maintenance Data: For each type of floor covering to include in maintenance manuals.
- G. Quality Assurance Submittals:
 - 1. Resilient Flooring: Manufacturer's written information regarding resilient flooring performance data provided by an independent testing lab.
 - 2. Adhesives: Manufacturer's written information regarding compatibility of adhesive with substrate and resilient flooring material.
 - 3. Certificates: Submit with manufacturer's signature certifying that each product and/or system meets the requirements of the performance characteristics, physical criteria, and applicable standards specified.
 - 4. Manufacturer's Instructions: Installation.
 - 5. Qualification Statements: Submit a letter, on printed letterhead and signed by an officer of the firm, for each listed quality assurance qualification listed, attesting to meeting each requirement called out.

1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced a minimum 5 years in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance.
- B. Installer Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for floor covering installation indicated.
 - 1. Engage an installer who employs workers for this Project who are trained or certified by floor covering manufacturer for installation techniques required.
- C. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E84 or NFPA 253 by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.
- D. Regulatory Requirements:
- E. Source Limitations: Obtain each flooring type and adhesive installed through one source from a single manufacturer.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Shipping, Delivery and Handling: Deliver in original labeled packaging, adequately protect products from soiling, damage, deterioration, and loss, including theft, handling with proper care in proportion to the fragility and hazard of each product and its finished surface.
 - 1. Store resilient sheet flooring and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F.
 - 2. Store resilient flooring in a manner to prevent unnecessary deformation or creasing.
 - 3. Store materials for 72 hours prior to installation in area of installation to achieve temperature stability.

1.5 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to and not a limitation of, other rights Owner may have under Contract Documents.
 - 1. Warranty Period: 10 years commencing in Date of Substantial Completion.

PART 2 PRODUCTS

2.1 RECYCLED VINYL SHEET FLOORING

- A. Basis-of-Design Manufacturer / Product: Oscoda Plastics, Inc. / Protect-All Commercial Flooring.
 - 1. Sheets 5 ft. x 8 ft. (1/4 in. thicknesses), in color chosen from manufacturer's samples in matte finish.
 - 2. Finish / Color: Standard Matte Finish with Smooth Side Up, Dark Gray.

2.2 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.
 - 1. Ardex SD-P Rapid Patch, by Ardex Engineered Cements.
 - 2. Levelayer I, by Dayton Superior Corporation.
 - 3. Flo-Top, by Euclid Chemical Co.
 - 4. Architect acceptable equivalent.
- B. Primers and Adhesives: Water-resistant, mildew-resistant, non-staining, pressure-sensitive type to suit products and subfloor and wall base conditions indicated, that complies with flammability requirements for resilient flooring and is recommended by resilient flooring manufacturer for installation indicated.
- C. Thermal Welding Rods:
 - 1. V-Rod.
 - 2. Fusion Welding Rod.
- D. Factory-Formed Corners: Manufacturer's standard matching floor installation if field fabrication of units is not performed.
- E. Stainless Steel Trims: Manufacturer's standard:
 - 1. Drain rings.
 - 2. Cove caps.
 - 3. Transition strips.

PART 3 EXECUTION

3.1 PROJECT CONDITIONS

- A. Proper Substrate:
 - 1. Assure that the substrate material is suitable for installation of flooring as indicated by manufacturer. Approved substrates include: marine-grade wood, cement board, and concrete (non-gypsum based only), properly cleaned and prepared per manufacturers guidelines.
 - a. PROTECT-ALL is not to be installed over any existing finish, such as quarry tile, any paint, or any type of tile.
 - b. PROTECT-ALL should not be installed in an "operating environment," meaning an environment that is not prepared to close entirely for the duration of the installation.
 - 2. Slab substrates must be dry and free of curing compounds, sealers, hardeners, and other materials whose presence would interfere with bonding of adhesive. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by floor covering manufacturer.
 - 3. Verify a clean, dry, and structurally sound surface to accept adhesive, free of cracks, ridges, depression, scales, and foreign deposits of any kind.
 - 4. Use only cementitious patching and filling compounds (3500 PSI). Consult manufacturer for details. (ACI 302.2R-06 ch. 9.5)
 - 5. Assure that the levelness (FL 15), and flatness (FF20 5/16 in 10 Ft.) of surface is in compliance with manufacturer's guidelines.
 - 6. Verify that sub-floor surfaces are ready for resilient flooring installation by testing moisture

emission rate and alkalinity, in accordance with ASTM F 710; obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer. Reference ASTM F 710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.

B. Environmental Conditions:

1. The contractor and installer of product is responsible for providing and maintaining a proper installation environment.
2. Installation area must be enclosed and watertight with all walls, wall finishes, doors, and floor penetrations in place.
3. Proper temperature acclimation of flooring material is required prior to installation. Minimum of 36-hours.
4. Assure confinement of space during installation and curing of adhesives to prevent other trades from damaging the product or compromising the adhesion.
5. Maintain a constant temperature during the installation and throughout the curing of adhesives.
6. Provide a secure area to store materials for installation.
7. Building must be completely enclosed and water-tight. HVAC system must be on at least 7 days prior to installation beginning, keeping the interior temperature at 70°. This temperature should be maintained during the installation, and an additional 8 days after completion.
 - a. PROTECT-ALL cannot have any foot traffic or rolling load traffic until flooring adhesive has fully cured, 7 – 8 days.

C. Proper Drain and Other Floor Penetration Elevations:

1. General: Coordinate with Division 22, PLUMBING for floor drains.
2. All drains to be installed level and with proper slope, no more than the thickness of the PROTECT-ALL MATERIAL (1/4 in. or 1/8 in.) above surface of sub floor.
3. When “dishing” of drain area is specified, the “dish” should not be less than 12 in. in diameter and more than 1 in. in depth.
4. All other penetrations should be installed no more than the thickness of the PROTECT-ALL (1/4 in. or 1/8 in.) above surface and provide accommodation for proper sealing.
5. Penetrations not terminating at floor surface must be a minimum of 6" above the surface of floor and be installed in such a way as to not interfere with the installation of the flooring or the base material, and allow adequate space for sealant to be applied to the entire perimeter, and finished off with manufacturer specified detail.

3.2 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 floor coverings.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 PREPARATION

- A. Concrete Substrates: Surface preparation.
 1. Comply with ASTM F710 and manufacturer's recommendations for surface preparation.
 - a. Remove substances incompatible with resilient flooring adhesive by method acceptable

- to manufacturer.
 - 2. Verify that substrates are free of curing compounds, sealers, and hardeners.
 - 3. 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.
 - 4. Joints such as expansion joints, contraction joints, isolation joints, or other moving joints shall not be filled with patching compound or covered with resilient flooring.
 - a. Install expansion joint covers designed for use with resilient flooring.
 - 5. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound.
 - a. Concrete shall be flat to within the equivalent of 3/16 inch in 10 feet, as described in ACI 117R.
 - 6. Perform bond tests recommended by flooring manufacturer.
- B. Do not install flooring materials until they are same temperature as space where they are to be installed.
- 1. Move resilient products and installation materials into spaces where they will be installed at least Forty eight (48) hours in advance of installation.
- C. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.4 FLOOR COVERING INSTALLATION

- A. Follow manufacturer recommendations for laying sheets out.
- B. Flooring must be cut tight to all penetrations.
- C. Adhere the floor material using manufacturer's recommended adhesive for the particular substrate type, job conditions, and in compliance with spread rate and proper trowel size.
- D. Roll floor into adhesive with 100# roller immediately and 1 hour later, as per manufacturer directions.
- E. Install stainless steel drain rings around all drains and other surface penetrations. Rings are to be routed into floor surface and mounted flush with top of flooring. Secure drain rings using stainless steel fasteners and lead anchors that will properly anchor the ring to the substrate.
- F. Install cove base as recommended by manufacturer with proper adhesive and top sealant. Heat-weld all seams.
- G. Install cove base cap fastening to wall a minimum of 8 in. on-center using stainless steel fasteners.
- H. Heat-weld all field material seams using manufacturer's welding rod, proper tools, and installation methods as approved by manufacturer.
- I. Stainless steel transitions as provided by the manufacturer must be used in doorways and transition areas. Use stainless steel fasteners, and lead anchors to secure.
- J. All exposed edges are to be sealed with manufacturer's recommended sealant to assure a watertight seal.

3.5 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:
 - 1. Remove adhesive and other blemishes from floor covering surfaces.
 - 2. Sweep and vacuum floor coverings thoroughly.
 - 3. Damp-mop floor coverings to remove marks and soil.
- C. Protect floor coverings from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Cover floor coverings until Substantial Completion.

END OF SECTION