

- 1.01 SUMMARY  
Section Includes: Solid Vinyl Floor Tile.
- 1.02 REFERENCES
- A. ASTM International:
1. F 1700 Standard Specification for Solid Vinyl Floor Tile.
  2. E 648 Standard Test Method for Critical Radiant Flux of Flooring Systems Using a Radiant Energy Source.
  3. E 662 Standard Test Method for Specific Density of Smoke Generated by Solid Materials.
  4. E 84 Standard Test Method for Surface Burning Characteristics of Building Materials.
  5. G 21 Determining Resistance of Synthetic Polymeric Materials to Fungi
  6. F 970 Standard Test Method for Static Load Limit.
  7. D 2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.
  8. F 1515 Standard Test Method for Measuring Light Stability of Resilient Vinyl Flooring by Color Change
  9. F 925 Standard Test Method for Resistance to Chemicals of Resilient Flooring.
  10. F 1482 Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring.
  11. F 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
  12. F 1482 Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring.
- B. National Fire Protection Association (NFPA):
1. NFPA 253 Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Energy Source.
  2. NFPA 258 Test Method for Specific Density of Smoke Generated by Solid Materials.
  3. NFPA 255 Method of Test of Surface Burning Characteristics of Building Materials
- C. Other test Results
1. EN 425, Castor Chair Test
  2. UL 992, Surface Flame Propagation
  3. FMVSS 302, Title 49, Part 571, Flammability of Interior Materials
  4. Does not contain any of the hazardous chemicals listed in California Proposition 65
  5. Collaborative for High Performance Schools 01350 Low-Emitting Material Criteria
- 1.03 SUBMITTALS
- A. Product Data: Submit product data, including manufacturer's specification summary sheet for specified products
- B. Shop Drawings: Submit shop drawings showing layout, finish colors, patterns and textures.
- C. Samples: Submit selection and verification samples for finishes, colors, and textures.
- D. Quality Assurance Submittals: Submit the following:
1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
  2. Manufacturer's Instructions: Manufacturer's installation and maintenance instructions.
- E. Submit the following:
1. Maintenance Data: Maintenance data for installed products in accordance with Division 1 sections. Include methods for maintaining installed products, and precautions against cleaning materials and methods detrimental to finishes and performance.
  2. Warranty: Warranty documents specified herein.
- 1.04 QUALITY ASSURANCE
- A. Installer Qualifications: Installer experienced in performing work of this section who has specialized in installing work similar to that required for this project.
- B. Regulatory Requirements
- Fire Performance characteristics: Provide Solid Vinyl Floor Tile with the following Fire performance characteristics as determined by testing products in accordance with ASTM method (and NFPA method) indicated below by a certified testing laboratory or another testing and inspecting agency acceptable to authorities having jurisdiction.
1. ASTM E 648 (NFPA 253), Critical Radiant Flux of Floor Covering Systems: Class 1, Greater than .45 w/cm<sup>2</sup>
  2. ASTM E 662 (NFPA 258), Specific Optical Density of Smoke Generated by Solid Materials: Passes, (45)
- C. Single-Source Responsibility: Obtain floor tile and manufacturer's recommended adhesive from a single supplier.
- D. Pre-Installation Meetings: Conduct pre-installation meeting to verify project Requirements. Manufacturer's conditions, recommended adhesive depending on product, substrate type and type of installation, manufacturer's installation instructions and manufacturer's warranty requirements. Comply with requirements in Division 1.

- 1.05 DELIVERY, STORAGE, AND HANDLING
- A. General: Comply with requirements in Division 1.
  - B. Ordering: Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
  - C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with Identification labels intact.
  - D. Storage and Protection: Store materials protected from exposure to harmful weather conditions and acclimated to site conditions at temperature and humidity conditions recommended by manufacturer.
- 1.06 PROJECT CONDITIONS
- A. Environmental Requirements/Conditions: In accordance with manufacturer's recommendations, areas to receive Solid Vinyl Floor Tile shall be clean, fully enclosed, weather tight with the permanent HVAC set at a uniform temperature of 65-85 degrees F for 48 hours prior too, during and thereafter installation. Solid Vinyl Floor Tile and adhesive shall be conditioned in the same manner. Vinyl Tile must be unboxed & acclimated in area of use at least 48 hours prior to installation.
  - B. Existing Conditions: [Specify existing conditions affecting product use and installation]
- 1.07 SEQUENCING AND SCHEDULING
- A. Finishing Operations: Install Solid Vinyl Floor Tile after finishing operations, including painting and ceiling operations etc., have been completed.
- 1.08 WARRANTY
- A. Manufacturer's Materials Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents. Warranty to commence on Date of Substantial Completion. Notice of any defect must be made in writing to manufacturer within thirty (30) days after buyer learns of the defect
    1. Warranty against defects in material and workmanship: one (1) year
    2. Limited Wear Warranty: Ten (10) years Ten year Limited Wear Warranty. Roppe's North Coast Collection and Safe Cork Vinyl Tile will not wear out for a period of ten (10) years, if installed, maintained, and used strictly in accordance with Roppe's written instructions, and under normal wear and traffic conditions for which it was designed.
    3. Do not use in, around or near commercial kitchens.
- 1.09 MAINTENANCE
- A. Extra Materials: Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 1 Closeout Submittals (Maintenance Materials) Section.
    1. Quantity: Furnish quantity of floor tile equal to 5% of amount to be installed.
    2. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage and protection of extra materials.
  - B. Maintenance of finished floor covering to be conducted per Manufacturer's Maintenance Guide.

## PART 2 PRODUCTS

Specifier Note: Retain article below for proprietary method specification. Add product attributes performance characteristics, material standards, and descriptions as applicable. Use of such phrases as "Or Equal" or "Or Approved Equal," or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal, and regulatory) and assignment of responsibility for determining "Or Equal" products.

- 2.01 SOLID VINYL FLOOR TILE
- A. Manufacturer: Roppe Corporation 1602 N. Union Street P.O. Box 1158 Fostoria, Ohio 44830  
Phone: (419) 435-8546 Fax: (419) 435-1056
  - B. Physical requirements:
    1. Description: Solid Vinyl Floor Tile meeting the requirements of ASTM F 1700.
    2. Resistance to Chemicals per ASTM F 925: Pass  
(list of chemicals provided by manufacturer on request)
    3. Light Stability per ASTM F 1515: Pass.(Delta E < 8.00)
    4. Abrasion resistance per ASTM D 3389: Excellent (<0.15 weight loss after 1,000 cycles using H-18 wheels with 500 gram load applied )
    5. Design and Color: As selected by Architect from manufacturer's standard designs and colors.
    6. Does do not contain any of the hazardous chemicals listed in California Proposition 65
    7. Collaborative for High Performance Schools 01350 Low-Emitting Material Criteria: Pass

- C. Proprietary Product(s): Roppe Solid Vinyl Floor Tile (select one)
1. North Coast Collection® Wood Naturals™ Solid Vinyl Tile
    - a. Classification: ASTM F 1700, Class III, Type B.
    - b. Thickness: 1/8" (3.175mm) nominal
    - c. Wearlayer Thickness: 0.040" (1.046mm) – exceeds ASTM F 1700, Commercial Use.
    - d. Static Coefficient of Friction (Slip Resistance) per ASTM D 2047: 0.52
    - e. Static load limit, per ASTM F 970 (test modified @ 300 psi): Pass.
    - f. Recycled Content: Approximately 10% post industrial content, can be recycled.
    - g. Size (select one)
      - 1.) 3" x 36" (76.2mm x 914.4mm)
      - 2.) 12" x 12" (304.8mm x 304.4mm)
      - 3.) 18" x 18" (457.2mm x 457.2mm)
    - h. Edge treatment (select one)
      - 1.) Beveled Edge
      - 2.) Square Edge
  2. Roppe SafeTcork Solid Vinyl Tile
    - a. Classification: ASTM F 1700, Class I, Type A.
    - b. Thickness: 0.080" (2mm) nominal
    - c. Static Coefficient of Friction (Slip Resistance) per ASTM D 2047 w/Neolite sensors: >0.6
    - d. Flame spread, per ASTM E 84 (NFPA 255), (select one):
      - 1.) Standard formula: Class B (26 – 75)
      - 2.) Class A formula: Class A (0 – 25)
    - e. UL 992, Surface Flame Propagation: Passes, < 2.0
    - f. FMVSS 302, Title 49, Part 571, Flammability of Interior Materials: Passes
    - g. Static Coefficient of Friction (Slip Resistance) per ASTM D 2047 w/neolite sensors: >0.60
    - h. Static load limit, per ASTM F 970 (test modified @ 2000 psi): Pass.
    - i. EN 425, Castor Chair Test: Passes
    - j. Determining Resistance of Synthetic Polymeric Materials to Fungi per ASTM G 21: No growth
    - k. Size, edge treatment (select one)
      - 1.) 12" x 12" (304.8mm x 308.4mm), square edge
      - 2.) 24" x 24" (609.6 mm x 609.6 mm), square edge
      - 3.) 24" x 24" (609.6 mm x 609.6 mm), pre-grooved (bevel) edge
      - 4.) 36" x 36" (914.4mm x 914.4mm), square edge
      - 5.) 36" x 36" (914.4mm x 914.4mm), pre-grooved (bevel) edge

## 2.02 PRODUCT SUBSTITUTIONS

A. Substitutions: No substitutions permitted.

## 2.03 RELATED MATERIALS

- A. Resilient floor covering accessories (select as required):
1. Roppe Color-coordinated resilient wall base, edging, nosing, transition moldings, as required  
[Specify product name, product number, color name, color number]
  2. Roppe Vinyl Welding Bead, 0.160" in diameter, for use in heat Welded seams. (Specifier note: use this section for products in section 3.01.C.2.k. (SafeTcork with pre-grooved edge):
  3. Roppe #165 Square Resilient Cove Cap (for self covered installation)
  4. Roppe #167 Fillet Stick (for self covered installations)
  5. Refer to other Division 9 sections for resilient floor covering accessories
- B. Substrate preparation and testing: Comply with ASTM F 710 Standard Practice for Preparing Floors to Receive Resilient Flooring.
- C. Expansion joint covers: Refer to other specification section for expansion joint covers to be used with resilient floor covering.

## PART 3 EXECUTION

### 3.01 MANUFACTURER'S INSTRUCTIONS

- A. Compliance: Comply with manufacturer's requirements as published in Roppe installation instructions.
- B. Adhesive (Select one):
1. Roppe 535U "Universal Urethane Enhanced Epoxy Adhesive" [Note: for areas subjected to rolling loads, lateral shear stress and over non-porous substrates including but not limited to metal.]
  2. Roppe 375 Rubber and Vinyl Tile Adhesive [Note: for areas subjected to normal foot traffic over porous substrates such as concrete and plywood and for on or above grade installations only]

### 3.02 EXAMINATION

- A. Site Verification of Conditions: Confirm substrate conditions (which have been previously addressed under other sections) are acceptable for product installing in accordance with manufacturer's instructions.
- B. Material Inspection: In accordance with manufacturer's installing requirements, visually inspect materials prior to installing. Material with visual defects shall not be installed.

### 3.03 PREPARATION

- A. Adjacent Surfaces Protection: Protect adjacent work areas and finish surfaces from damage while installing.
- B. Surface Preparation, General: Prepare substrate in accordance with manufacturer's instructions.
  - 1. Substrate: Prepare substrate to be free of paint, old adhesive, sealers, coatings, finishes, dirt, film-forming curing compounds, or other substances which may affect the adhesion of floor covering to the substrate.
    - a. Concrete Substrate: Reference Standard ASTM F 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
    - b. Concrete Moisture Test: Per ASTM F 710 section 5, persons or testing agencies with experience in concrete moisture testing shall perform moisture tests on concrete regardless of its age or grade level or history of use, with a minimum of three tests for the first 1000 square feet and one additional test for each 1000 square feet or fraction thereof, per grade level. A diagram of the area showing the location and results of each test shall be dated and submitted to the architect, general contractor and/or end user. If the test results exceed the floor covering manufacturer's limits, installing shall not commence until results conform to limits.
    - c. Concrete pH Test: Perform pH tests on concrete regardless of its age or grade level or history of use. Readings below 7.0 and above 10.0 can adversely affect resilient flooring or adhesives, or both. If the test results exceed the floor covering manufacturer's limits, installing shall not commence until results conform to limits.
  - 2. Wood Substrate: Per ASTM F1482, Wood subfloor/underlayment assemblies shall be double layer construction, with a total thickness of not less than 1".
    - a. There shall be minimum 18 inches of well-ventilated air space beneath all wood subfloors. Crawl spaces shall be insulated and protected by a moisture vapor barrier.
    - b. Do not install over "sleeper" underlayment systems or wood underlayment installed over concrete.
    - c. Do not install over Lauan panels, CCA Plywood, Fire rated plywood, plywood with knots, underlayment made of pine or other soft woods, particle board, Oriented Strand Board (OSB) Masonite™ or other hardboard underlayment, hardwood flooring, textured or cushioned flooring, treated or otherwise coated wood material or other uneven or unstable substrates. Unacceptable surfaces shall be covered using a 1/4-inch or thicker panel underlayment per section d.
    - d. Wood Underlayments: Use only plywood underlayment that is warranted by the underlayment manufacturer for use as an underlayment for sheet vinyl floor covering in commercial applications. Do not use Lauan.
    - e. Refer to Division 6 Carpentry sections for wood subfloor construction.
  - 3. Refer to manufacturer's installation instructions regarding installations over existing ceramic tile, cementitious terrazzo and metal.
  - 4. Do not install over existing floor covering nor over substrates not approved by manufacturer.

### 3.04 INSTALLING

- A. Refer to Roppe 10-Part Specification Sheet for vinyl tile installation instructions for detailed specifications on installing Roppe North Coast Collection & SafeTcork Vinyl Tile.
- B. Finish Floor Covering Designs: As selected by Architect.
- C. Accessories: Architect shall specify manufacturers' color coordinated accessories as required, including (but not limited to) Resilient wall base, stair nosing, reducers or other edgings, welding rods for heat welded seams.

### 3.05 FIELD QUALITY REQUIREMENTS

- A. Manufacturer's Field Services: Upon Owner's request and with minimum 72 hours notice, provide manufacturer's field service consisting of product use recommendations and periodic site visits to confirm installing of product is in accordance with manufacturer's instructions.
  - 1. Site Visits: [Specify number and duration of periodic site visits.]

### 3.06 CLEANING

- A. Cleaning: See Roppe maintenance instructions. Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean and maintain installed products in accordance with manufacturer's instructions prior to owner's acceptance. Remove construction debris from project site and legally dispose of.

### 3.07 PROTECTION

- A. Protection: Protect installed product and finish surfaces from damage during construction. Remove and legally dispose of protective covering at time of substantial completion.
- B. Keep foot traffic off new floor covering for first 48 hours.
- C. Keep furniture, fixtures and rolling traffic off for first 72 hours.
- D. No maintenance for first 72 hours.

### 3.08 INITIAL MAINTENANCE PROCEDURES

- General: Include in contract sum cost for initial maintenance procedures and execution by professional maintenance personnel after floor covering has been installed for three days as specified in the Roppe maintenance instructions.