

SECTION 09 65 19.23 – VINYL TILE FLOORING**1. GENERAL**

1. SUMMARY

A. SECTION INCLUDES:

1. Glue Down Luxury Vinyl Tile (LVT) / Luxury Vinyl Plank (LVP)
2. Loose Lay LVT / LVP
3. Click-and-Lock LVT / LVP
4. Adhesives

B. RELATED SECTIONS

1. Section 03300 - Cast-In-Place Concrete Floor substrate requirements.
2. Section 06200 - Rough Carpentry: Floor substrate requirements.

2. REFERENCES

A. American Concrete Institute (ACI):

1. ACI 302.2R - Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials

B. American Society for Testing and Materials (ASTM):

1. ASTM D2047 - Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring Surfaces as Measured by the James Machine.
2. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
3. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.
4. ASTM E662 - Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials.
5. ASTM F137 - Standard Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus.
6. ASTM F141 - Standard Terminology Relating to Resilient Floor Coverings
7. ASTM F373 – Standard Test Method for Embossed Depth of Resilient Floor Covering
8. ASTM F386 – Standard Test Method for Thickness of Resilient Flooring Materials Having Flat Surfaces
9. ASTM F410 – Standard Test Method for Wear Layer Thickness of Resilient Floor Coverings by Optical Measurement
10. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
11. ASTM F925 - Standard Test Method for Resistance to Chemicals of Resilient Flooring.
12. ASTM F970 - Standard Test Method for Static Load Limit.
13. ASTM F1482 – Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring.
14. ASTM F1514 - Standard Test Method for Measuring Heat Stability of Resilient Flooring by Color Change.
15. ASTM F1515 – Standard Test Method for Measuring Light Stability of Resilient Flooring by Color Change
16. ASTM F1700 – Standard Specification for Solid Vinyl Tile

17. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride
 18. ASTM F1914 - Standard Test Methods for Short-Term Indentation and Residual Indentation of Resilient Floor Covering.
 19. ASTM F2055 – Standard Test Method for Size and Squareness of Resilient Floor Tile
 20. ASTM F2199 - Standard Test Method for Determining Dimensional Stability of Resilient Floor Tile after Exposure to Heat.
 21. ASTM F2419 – Standard Practice for Installation of Thick Poured Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring.
 22. ASTM F2471 – Standard Practice for Installation of Thick Poured Lightweight Cellular Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring.
- C. State of California (CA)
1. CA Section 01350 – Special Environmental Requirements (Indoor Air Quality)
- D. California Department of Public Health (CDPH)
1. CDPH Standard Method v 1.2 - Standard Method for Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers
- E. California High Performance Schools (CHPS)
1. CHPS Section 01350 - Low-Emitting Materials Criteria for Use in Classrooms.
- F. Declare™
1. Product material disclosure labeling program.
- G. FloorScore®
1. Indoor Air Quality (IAQ) certification for flooring materials, adhesives and underlayments.
- H. Health Product Declaration Collaborative (HPDC)
1. Health Product Declaration (HPD) material disclosure list.
- I. International Standards Organization (ISO)
1. ISO 9001 – Quality Management Systems (QMS)
 2. ISO 14001 – Environmental Management Systems (EMS)
 3. ISO 14025 – Environmental Labels and Declarations
- J. Living Building Challenge (LBC)
1. LBC Chemical Red List Version 3.0.
- K. National Fire Protection Association (NFPA)
1. NFPA 80 – Fire Safety Code.
 2. NFPA 253 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.
 3. NFPA 255 - Standard Test Method for Surface Burning Characteristics of Building Materials.
 4. NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth.
- L. Occupational Health and Safety Administration
1. OHSAS 180001 – Occupational Health and Safety Management
- M. Resilient Floor Covering Institute (RFCI)
1. Recommended Work Practices for Removal of Resilient Floor Coverings
- N. Underwriters Laboratories (UL) Environment

1. Certified body of Environmental Product Declaration (EPD) and Environmental Management Systems (EMS), verified in accordance with ISO 9001, ISO 14001, ISO 14025 and OHSAS 18001.
3. SUBMITTALS
 - A. General: Submittals must be submitted the under provisions of Section 01300.
 - B. Product Data: Manufacturer's published documents on each product to be used, including:
 1. Storage and handling requirements.
 2. Installation instructions and initial maintenance instructions per Technical Data Sheets.
 3. Maintenance and initial finish application instructions per Care & Maintenance documents.
 - C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
 - D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square or one full tile, representing actual product, color, and patterns.
4. SUSTAINABILITY REQUIREMENTS
 - A. CA Section 01350 / CHPS Section 01350
 1. Provide building materials that comply with CA Section 01350 and CHPS Section 01350 when tested in accordance with CDPH Standard Method v 1.2.
 2. Provide test data or third party certification that confirms compliance, such as FloorScore certification.
 - B. Environmental Product Declaration
 1. Provide EPDs that are independently verified by a qualifying body (such as UL) and compliant with ISO 14025.
 - C. Health Product Declaration
 1. Provide HPDs that have been verified by the HPDC.
 - D. LBC Chemical Red List 3.1
 1. Provide building materials that are Red List Free in accordance the LBC Chemical Red List 3.1.
 2. Provide full material disclosure or third party certification that confirms compliance, such as Declare labeling.
5. QUALITY ASSURANCE
 - A. Qualifications:
 1. Installer Qualifications: Installer must be a professional, licensed and experienced installer. Installer must have familiarity with both the type, size and format of the product.
 2. Manufacturer's Qualifications
 - a. Manufacturer must be ISO 9001, ISO 14001 and OHSAS 18001 compliant.
 - b. Manufacturer must provide remote and field technical support and service prior to, during and following installation, as necessary.
 - B. Mock-Up:
 - a. Provide a mock-up for evaluation of product, surface preparation techniques and installation workmanship.
 - b. Do not proceed with remaining work until size, color, thickness, sheen and workmanship are approved by Architect, End-User and/or other stakeholders.

- c. Maintain mock-up area as required in accordance with Care & Maintenance documents to produce acceptable work.
6. DELIVERY HANDLING & STORAGE
- A. Ordering: Comply with manufacturer's ordering and lead time requirements to avoid construction delays.
 - B. Storage: Store products in climate controlled space (65° F (19° C) - 85° F (30° C) for at least 48 hours prior to installation. Keep products in manufacturer's unopened packaging until ready for installation (except for rolled goods).
 - C. Acclimation: Rolled goods must be unrolled and allowed to relax and acclimate for 24 hours prior to installation.
7. PROJECT CONDITIONS
- 1. Environmental Conditions: Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer in accordance with product technical data sheets. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. WARRANTY
- 1. Project Warranty: Refer to Conditions of Contract for project warranty provisions.
 - 2. Manufacturer's Commercial Warranty:
 - a. 5mm AVA RYME LVT shall be warranted for commercial use ten years for material or manufacture defects.

2. PRODUCTS

1. PRODUCT MANUFACTURERS
- A. Acceptable Manufacturer:
 - 1. AVA by Novalis Innovative Flooring
Supplied by Lititz Flooring Company
215 Bucky Drive
Lititz, PA 17543
P: 800.492.2613
E: sales@avaflor.com
Web: www.avaflor.com
2. SUBSTITUTIONS
- 1. **** NOTE TO SPECIFIER ** Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**
 - B. Substitutions: Not permitted.
 - C. Requests for substitutions will be considered in accordance with provisions of Division 01.
3. PRODUCT DIMENSIONS
- ** NOTE TO SPECIFIER ** Delete products and sizes not required.**
 - A. Product: AVA RYME Luxury Vinyl Tiles & Planks (LVT, LVP) as manufactured by Novalis Innovative Flooring.
 - 1. Loose Lay LVT Sizes (all sizes nominal):
 - a. 9 inches by 48 inches by 3/16 inches (228.6 mm by 1.2 m by 5 mm)
 - b. 39.37" by 39.37" by 3/16 inches (1m by 1m b 5mm)
 - B. Product: AVA RYME+ Luxury Vinyl Tiles & Planks (LVT, LVP) as manufactured by Novalis Innovative Flooring.

1. Acoustical Loose Lay LVT Sizes (all sizes nominal):
 - a. 9 inches by 48 inches by 7/32 inches (228.6 mm by 1.2 m by 5.5 mm)
- 2.
4. PRODUCT COLOR
**** NOTE TO SPECIFIER ** Delete colors not required.**
 - A. Alpine Oak Anchor
 - B. Alpine Oak Khaki
 - C. Alpine Oak Prestige
 - D. Alpine Oak Syrup
 - E. Beton Harbor
 - F. Beton Iron
 - G. Beton Pearl
 - H. Beton Steel
 - I. Peninsula Oak Canyon
 - J. Peninsula Oak Panhandle
 - K. Peninsula Oak Summit
 - L. Peninsula Oak Timber
 - M. Tuscany Oak Carafe
 - N. Tuscany Oak Mist
 - O. Tuscany Oak Peanut
 - P. Tuscany Oak Snow
5. PHYSICAL CHARACTERISTICS
**** NOTE TO SPECIFIER ** Delete surfaces not required.**
 - A. Surface – Alpine Oak & Tuscany Oak: Embossed With Micro-Bevel
 - B. Surface – Beton & Peninsula Oak: Embossed With Straight Edge
 - C. ASTM F1700 – Solid Vinyl Tile:
 1. Classification: Class III, Type B
 2. ASTM F410 – Wear Lay Thickness: 20 mils (0.5 mm)
 3. ASTM F1914 – Residual Indentation: Passes, <10%
 4. ASTM F137 – Flexibility: Passes
 5. ASTM F2199 – Dimensional Stability: Passes, <0.05 in. change
 6. ASTM F925 – Chemical Resistance:
 - a. White vinegar (5% Acetic Acid) - Passes.
 - b. Rubbing Alcohol (70% Isopropyl Alcohol) - Passes.
 - c. Lye (5% Sodium Hydroxide) - Passes.
 - d. Hydrochloric Acid (5% HCl) - Passes.
 - e. Sulfuric Acid (5% H₂SO₄) - Passes.
 - f. Household Ammonia (5% Ammonia) - Passes.
 - g. Disinfectant Cleaner (5% Active Phenol) - Passes.
 - h. Household Bleach (5.25% NaOCl) - Passes.
 - i. Unleaded Gasoline - Passes.
 - j. Kerosene - Passes.
 - k. Olive Oil - Passes.
 7. ASTM F1514 – Color Heat Stability: Passes, $\Delta E < 8$
 8. ASTM F1515 – Color Light Stability: Passes, $\Delta E < 8$

9. ASTM F970 – Static Load Limit: Passes, 250 lbs.
 10. ASTM F970 – Modified for Max Weight: 1,200 lbs.
 - D. ASTM E648 (NFPA 253) – Critical Radiant Flux: Class I, > 0.45 W/cm²
 - E. ASTM E662 (NFPA 258) – Smoke Density: Passes, <450
 - F. ASTM D2047 – Slip Resistance: >0.6 (dry)
6. PRODUCT ADHESIVE
- ** NOTE TO SPECIFIER ** Delete adhesive not required.**
- A. Only Novalis approved adhesives shall be used when installing RYME.
 1. Novalis NFA T226 Acrylic Transitional Adhesive.
 2. Gold Series MA 2000 Modified Acrylic Spray Adhesive.
 3. Gold Series MW 3010 Modified Silane Resilient Flooring Adhesive.

2. EXECUTION

**** NOTE TO SPECIFIER ** Revise articles below to suit specific project requirements.**

1. MANUFACTURERS INSTRUCTIONS
 - A. Compliance: Review and comply with manufacturer's technical data sheets, care & maintenance documents, warranty information, technical bulletins and written specifications.
2. EXAMINATION
 - A. Site Verification of Conditions:
 1. Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's technical data.
 2. Do not begin installation until all substrates have been properly tested and prepared in accordance with RYME technical data sheets and applicable ASTM, ACI, NWFA and RFCI standards.
 3. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
3. PREPARATION
 - A. Cleaning: Clean surfaces thoroughly prior to installation.
 - B. Substrate Preparation: Prepare surfaces in accordance with substrate preparation requirements published in RYME technical data sheets.
4. INSTALLATION
 - A. Flooring Installation: Install materials in accordance with installation instructions published in AVA RYME technical data sheets.
 - B. Traffic Limits: No traffic, cleaning, finishing or placement of furniture should occur in accordance with adhesive traffic limits published in adhesive technical data.
 - C. Initial Maintenance: Once adhesive has cured, perform initial maintenance in accordance with initial maintenance instructions published in RYME technical data sheets and care & maintenance documents.
5. FINISH APPLICATION
 - A. Initial Maintenance: Ensure surfaces have had initial maintenance performed in accordance with initial maintenance instructions published in RYME technical data sheets and care & maintenance documents.
 - B. Cleaning: Clean surfaces thoroughly prior to final use.

6. MAINTENANCE

- A. Daily Maintenance: Long-term care and maintenance must be performed in accordance with daily and routine maintenance instructions published in RYME care & maintenance documents.

7. PROTECTION

- A. Temporary Floor Protection: Protect installed products until completion of project in accordance with flooring or material protection requirements published in RYME technical data sheets and care & maintenance documents.
- B. Repair: Touch-up, repair or replace damaged products before Substantial Completion.
- C. Permanent Floor Protection: Ensure furniture feet/bottom, glides and chair casters dimensions and materials are in accordance with floor protection requirements published in AVA RYME care & maintenance documents prior to Substantial Completion.

END OF SECTION