**SECTION 09 65 00 – RESILIENT FLOORING / HDF FLOATING LINOLEUM FLOOR**

1. **GENERAL**
	1. SUMMARY
		1. SECTION INCLUDES:
			1. HDF floating Linoleum plank/tile.
			2. Adhesives
			3. Finishes
		2. RELATED SECTIONS
			1. Section 03300 - Cast-In-Place Concrete Floor substrate requirements.
			2. Section 06200 - Rough Carpentry: Floor substrate requirements.
	2. REFERENCES
		1. American Concrete Institute (ACI):
			1. ACI 302.2R - Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials
		2. 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 E90 – Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
			3. ASTM E413 - Classification for Rating Sound Insulation (STC).
			4. ASTM E492 – Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine
			5. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.
			6. ASTM E662 - Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials.
			7. ASTM E989 - Standard Classification for Determination of Impact Insulation Class (IIC).
			8. ASTM F141 - Standard Terminology Relating to Resilient Floor Coverings
			9. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
			10. ASTM F925 - Standard Test Method for Resistance to Chemicals of Resilient Flooring.
			11. ASTM F970 - Standard Test Method for Static Load Limit.
			12. ASTM F1482 – Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring.
			13. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
			14. ASTM F1914 - Standard Test Methods for Short-Term Indentation and Residual Indentation of Resilient Floor Covering.
			15. ASTM F2055 – Standard Test Method for Size and Squareness of Resilient Floor Tile.
			16. ASTM F2199 - Standard Test Method for Determining Dimensional Stability of Resilient Floor Tile after Exposure to Heat.
			17. ASTM F2419 – Standard Practice for Installation of Thick Poured Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring.
			18. ASTM F2471 – Standard Practice for Installation of Thick Poured Lightweight Cellular Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring.
		3. State of California (CA)
			1. CA Section 01350 – Special Environmental Requirements (Indoor Air Quality)
		4. 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
		5. California High Performance Schools (CHPS)
			1. CHPS Section 01350 - Low-Emitting Materials Criteria for Use in Classrooms.
		6. International Organization for Standardization (ISO)
			1. ISO 10874 – Resilient, Textile and Laminate Floor Coverings – Classification
			2. ISO 23999 – Resilient Floor Coverings – Determination of Dimensional Stability and Curling After Exposure to Heat
			3. ISO 24334 – Laminate Floor Coverings – Determination of Locking Strength for Mechanically Assembled Panels
			4. ISO 24343 – Resilient and Laminate Floor Coverings – Determination of Indentation and Residual Indentation
		7. 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.
		8. Resilient Floor Covering Institute (RFCI)
			1. Recommended Work Practices for Removal of Resilient Floor Coverings
	3. SUBMITTALS
		1. General: Submittals must be submitted the under provisions of Section 01300.
		2. 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.
		3. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
		4. 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
		1. 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.
	5. QUALITY ASSURANCE
		1. 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: Manufacturer must provide remote and field technical support and service prior to, during and following installation, as necessary.
		2. Mock-Up:
			1. Provide a mock-up for evaluation of product, surface preparation techniques and installation workmanship.
			2. Do not proceed with remaining work until size, color, thickness, sheen and workmanship are approved by Architect, End-User and/or other stakeholders.
			3. Maintain mock-up area as required in accordance with Care & Maintenance documents to produce acceptable work.
	6. DELIVERY HANDLING & STORAGE
		1. Ordering: Comply with manufacturer’s ordering and lead time requirements to avoid construction delays.
		2. Storage: Store products in climate controlled space (65° F (19° C) - 85° F (30° C), 45% - 55% RH) for at least 72 hours prior to installation. Keep products in manufacturer's unopened packaging until ready for installation (except for rolled goods).
		3. 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.
		1. WARRANTY
			1. Project Warranty: Refer to Conditions of Contract for project warranty provisions.
			2. Manufacturer’s Commercial Warranty: Eco-Clicks Linoleum Plus shall be warranted for ten years for material or manufacture defects.
2. **PRODUCTS**
	1. PRODUCT MANUFACTURERS
		1. Acceptable Manufacturer:
			1. Capri Collections

215 Bucky Drive

Lititz, PA 17543

P: 800.492.2613
E: sales@capricollections.com

Web: www.capricollections.com

* 1. SUBSTITUTIONS

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 01 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Division 01.
	1. PRODUCT DIMENSIONS
		1. Product: Capri Eco-Clicks Linoleum Plus Plank as manufactured by Capri Collections.
			1. 12 inches by 36 inches by 7/16 inch (305 mm by 914 mm by 10.5 mm).
	2. PRODUCT COLOR

\*\* NOTE TO SPECIFIER \*\* laminated Linoleum: linoleum sheet on HDF core with cork backing. Delete color not required.

* + - 1. Cream.
			2. Dune.
			3. Fire.
			4. Ginger.
			5. Glacier.
			6. Haze.
			7. Onyx.
			8. Polar.
			9. Royal.
			10. Spa.
			11. Straw.
			12. Squash.
			13. Thatch.
			14. Umbra.
	1. PHYSICAL CHARACTERISTICS
		1. ISO 10874 – Laminate Flooring Classification: Class 32 (Commercial, General)
		2. ISO 23999 – Dimensional Stability: Passes, <0.04%
		3. ISO 24334 – Locking Strength: Passes, > 3kN/m
		4. ISO 24343 – Residual Indentation: Passes, <0.25mm
		5. ASTM F925 – Chemical Resistance:
			1. White vinegar (5% Acetic Acid) - Passes.
			2. Rubbing Alcohol (70% Isopropyl Alcohol) - Passes.
			3. Lye (5% Sodium Hydroxide) - Passes.
			4. Hydrochloric Acid (5% HCI) - Passes.
			5. Sulfuric Acid (5%H2SO4) - Passes.
			6. Household Ammonia (5% Ammonia) - Passes.
			7. Disinfectant Cleaner (5% Active Phenol) - Passes.
			8. Household Bleach (5.25% NaOCl) - Passes.
			9. Unleaded Gasoline - Passes.
			10. Kerosene - Passes.
			11. Olive Oil - Passes.
		6. ASTM E648 (NFPA 253) – Critical Radiant Flux: Class II, 0.22-0.44 W/cm2
		7. ASTM E662 (NFPA 258) – Smoke Density: Passes, <450
		8. ASTM D2047 – Slip Resistance: >0.7 (wet), >0.8 (dry)
		9. ASTM E492/E989 – Impact Sound Transmission – 6” Concrete, Drop Ceiling: IIC 56
		10. ASTM E90/E413 – Airborne Sound Transmission – 6” Concrete, Drop Ceiling: STC 53
	2. ACCESSORIES
		1. Matching and compatible moldings and accessories are available through Capri Collections.
	3. PRODUCT FINISH

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Only Capri Collections approved floor finishes shall be used when installing Eco-Clicks Linoleum Plus.
			1. Site-Applied Acrylic Finish: Hilway Direct Plus.
			2. Site-Applied Urethane Finish: Loba 2K Supra AT.
	1. PRODUCT ADHESIVE

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Only Capri Collections approved adhesives shall be used when installing Eco-Clicks Vinyl Plus.
			1. Wakol MS 260 Modified Silane Adhesive.
1. **EXECUTION**

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

* 1. MANUFACTURERS INSTRUCTIONS
		1. Compliance: Review and comply with manufacturer’s technical data sheets, care & maintenance documents, warranty information, technical bulletins and written specifications.
	2. EXAMINATION
		1. 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 Capri Eco-Clicks Linoleum Plus 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
		1. Cleaning: Clean surfaces thoroughly prior to installation.
		2. Substrate Preparation: Prepare surfaces in accordance with substrate preparation requirements published in Capri Eco-Clicks Vinyl Plus technical data sheets.
	4. INSTALLATION
		1. Flooring Installation: Install materials in accordance with installation instructions published in Capri Eco-Clicks Linoleum Plus technical data sheets.
		2. Traffic Limits: If adhesive is used, no traffic, cleaning, finishing or placement of furniture should occur in accordance with adhesive traffic limits published in adhesive technical data.
		3. Initial Maintenance: Once traffic limits have lapsed, perform initial maintenance in accordance with initial maintenance instructions published in Capri Eco-Clicks Linoleum Plus technical data sheets and care & maintenance documents.
	5. FINISH APPLICATION
		1. Initial Maintenance: Ensure surfaces have had initial maintenance performed in accordance with initial maintenance instructions published in Capri Eco-Clicks Linoleum Plus technical data sheets and care & maintenance documents.
		2. Cleaning: Clean surfaces thoroughly prior to finish application.
		3. Finish Application: Install finish in accordance with initial finish application instructions published in Capri Eco-Clicks Linoleum Plus technical data sheets and care & maintenance documents.
	6. MAINTENANCE
		1. Daily Maintenance: Long-term care and maintenance must be performed in accordance with daily and routine maintenance instructions published in Capri Eco-Clicks Linoleum Plus care & maintenance documents.
		2. Finish Reapplication: Site-applied finish that is improperly applied or damaged may require finish re-application in accordance with finish removal and reapplication instructions published in Capri Eco-Clicks Linoleum Plus care & maintenance documents.
	7. PROTECTION
		1. Temporary Floor Protection: Protect installed products until completion of project in accordance with flooring or material protection requirements published in Capri Eco-Clicks Linoleum Plus technical data sheets and care & maintenance documents.
		2. Repair: Touch-up, repair or replace damaged products prior to Substantial Completion.
		3. Permanent Floor Protection: Ensure furniture feet/bottom, glides and chair casters dimensions and materials are in accordance with floor protection requirements published in Capri Eco-Clicks Linoleum Plus care & maintenance documents prior to Substantial Completion.

**END OF SECTION**