**DIVISION 09 - FINISHES
SECTION 09 65 00 - RESILIENT FLOORING**

This document is provided to assist in the preparation of a Project or Master Specification and has been formatted in accordance with the Construction Specifications Institute (CSI)’s MasterFormat®.

1. **GENERAL**
	* + 1. **GENERAL PROVISIONS**
				1. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.
			2. **DESCRIPTION OF WORK**
				1. **Work Included:** Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:

Resilient wall base and accessories.

Substrate preparation.

* + - * 1. **Related Work:** The following items are not included in this Section and are specified under the designated Sections:

Section 03 30 00 CAST-IN-PLACE CONCRETE for concrete substrate; slab surface tolerances;

Section 06 10 00 ROUGH CARPENTRY for plywood substrate and surface tolerances.

Section 09 69 00 ACCESS FLOORING for resilient floor covering for access panels.

* + - * 1. **References (Industry Standards):**

ASTM International (ASTM):

ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials

ASTM E648 Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source

ASTM E662 Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials

ASTM F710 Standard Practice for Preparing Concrete to Receive Resilient Flooring

ASTM F1861 Standard Specification for Resilient Wall Base

ASTM F386 Standard Test Method for Thickness of Resilient Flooring Materials Having Flat Surfaces

Canadian ULC Standards (CAN/ULC):

CAN/ULC-S102.2 Surface Burning Characteristics

National Fire Protection Association (NFPA):

NFPA 253 Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Energy Source

NFPA 258 Test Method for Specific Density of Smoke Generated by Solid Materials

NFPA 255 Test Method of Test of Surface Burning Characteristics of Building Materials

* + - 1. **SUBMITTALS**
				1. **General**: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures.
				2. **Product Data:** Submit manufacturer's technical data sheet, care & maintenance document, submittal and/or warranty for each material and accessory proposed for use (available at www.roppe.com).
				3. **Samples:** Submit representative samples of each product specified for verification.
			2. **QUALITY ASSURANCE**
				1. **Manufacturer Qualifications:** Provide resilient flooring materials manufactured in the United States of America by a firm with a minimum of 10 years’ experience with resilient flooring materials of type equivalent to those specified.

Manufacturer’s quality management system must have ISO 9001:2000 approval.

Provide resilient flooring products, including wall base, accessories and subfloor preparation products from one manufacturer to ensure color matching and compatibility.

Manufacturer shall be capable of providing technical training and technical field service representation.

* + - * 1. **Installer Qualifications:** Installer must be professional, licensed, insured and acceptable to manufacturer of resilient flooring materials. Project Managers or Field Supervisors must be INSTALL (International Standards & Training Alliance) certified, CFI (Certified Floorcovering Installers) Certified and/or an FCICA (The Flooring Contractors Association) CIM (Certified Installation Manager) for the requirements of the project.
				2. **Sustainable Design Requirements:**

Construction waste take back program for the purpose of reducing jobsite waste by taking back uninstalled waste flooring. Information is available at https://roppe.com/impact/.

Wall base and accessories that are easily cleaned and do not require coatings and stripping, or use chemicals that may be hazardous to human health.

Supply all required products that are CA 01350 compliant.

Wall base and accessories that are free of materials known to be teratogenic, mutagenic or carcinogenic.

Wall base and accessories that contain no polyvinyl chloride or plasticizers.

Wall base and accessories that contain no halogens.

Wall base and accessories that contain no asbestos.

* + - 1. **DELIVERY, STORAGE, AND HANDLING**
				1. Deliver materials in labeled packages. Store and handle in strict compliance with manufacturer's recommendations. Protect from damage due to weather, excessive temperatures, and construction operations.
				2. Deliver materials sufficiently in advance of installation to condition materials to the required temperature for 48-hours prior to installation.
			2. **PROJECT CONDITIONS**
				1. Maintain temperature and humidity at service levels or the ambient temperature must remain steady (± 10° F) and be between 65° F and 85° F for at least 48-hours prior to, during and after installation. The ambient relative humidity is recommended to be between 40% and 65% RH; avoid dew point conditions.
			3. **WARRANTY**
				1. Provide manufacturer’s standard limited commercial warranty to cover manufacturing defects.
1. **PRODUCTS**

*Note To specifier: remove and ammend sections as neccesary.*

* + - 1. **ACCEPTABLE MANUFACTURER**
				1. **Basis-of-Design:** Roppe Corporation, 1602 N Union St., Fostoria, OH 44830. P: (800) 537 – 9527
				2. **Substitutions:** No substitutions permitted.
			2. **RESILIENT Wall BASE**
				1. **Rubber Wall Base:**

|  |  |  |
| --- | --- | --- |
|  | Product Name: | **Pinnacles** |
|  | Material Specification: ASTM F1861 | Type TS – rubber, vulcanized thermosetGroup 1 – solid, (homogenous)Style A – Straight, Style B – Cove, Style C – Butt-to |
|  | Material Height: | 2 ½” (63.5 mm), 3” (76.2 mm), 3 ½” (88.9 mm), 4” (101.6 mm), 4 ½” (114.3 mm), 5” (127 mm), 5 ½” (139.7 mm),6” (152.1 mm) |
|  | Material Thickness:ASTM F386  | 1/8” (3.2 mm) |
|  | Material Length: | 48” sections (1.22 m), 120’ (36.58 m) |
|  | Limited Warranty: | 1 year, Manufacturing Only |
|  | Material & Composition: | 100% vulcanized homogenous rubber compound comprised of a premium blend & SBR rubber materials. |
|  | Color: | 70 standard color |
|  | Surface BurningASTM E84/NFPA 255 | Class B |
|  | Flammability/Critical Radiant Flux:ASTM E648 / NFPA 253  | Class 1 (>0.45 Watts per sq. cm.), .082 W/cm2 |
|  | Smoke Density:ASTM E662/NFPA 258 | Passes (<450), 157 (flaming) - 197 (non-flaming) |
|  | Surface Burning:CAN/ULC-S102.2 | FSR 50, SDS 175 |
|  | Substrate Preparation: | Per ASTM F710 and Roppe Technical Data Sheet |

* + - * 1. **Sculptured Rubber Wall Base:**

|  |  |  |
| --- | --- | --- |
|  | Product Name: | **Pinnacle Plus**  |
|  | Material Specification: ASTM F1861 | Type TS - rubber, vulcanized thermosetGroup 1 – solid (homogenous)Style A – Straight, Style B – Cove, Style D – Sculptured |
|  | Material Height: | 2 ½” (63.5 mm), 3” (76.2 mm), 4” (101.6 mm), 4 ¼” (107.95 mm), 4 9/16” (115.8 mm), 4 5/8” (117.47 mm), 5” (127 mm), 5 1/4” (133mm), 5 ½” (139.7 mm) |
|  | Material Thickness:ASTM F386  | 1/8” (3.2 mm), ¼” (6.35 mm),3/8” (9.53 mm) |
|  | Material Length: | 8’ (2.44 mm) sections, 60’ coils (18.29 m), 120’ coils (36.58 m) |
|  | Limited Warranty: | 1 year, Manufacturing Only |
|  | Material & Composition: | 100% vulcanized homogenous rubber compound comprised of a premium blend & SBR rubber materials. |
|  | Color: | 70 standard color |
|  | Surface BurningASTM E84/NFPA 255 | Class B |
|  | Flammability/Critical Radiant Flux:ASTM E648 / NFPA 253 | Class 1 (>0.45 Watts per sq. cm.), .082 W/cm2 |
|  | Smoke Density:ASTM E662/NFPA 258 | Passes (<450), 157 (flaming) - 197 (non-flaming) |
|  |  Surface Burning:CAN/ULC-S102.2 | FSR 50, SDS 175 |
|  | Substrate Preparation: | Per ASTM F710 and Roppe Technical Data Sheet |

* + - 1. **INSTALLATION PRODUCTS:**
				1. **Acrylic Adhesives**

|  |  |  |
| --- | --- | --- |
|  | Product Name:Product Description:Product Usage: | **WB-600**Acrylic Wall Base AdhesiveFor standard, interior wall base installations over porous substrates only. |
|  | Product Name:Product Description:Product Usage: | **AW-510**Acrylic Wet-Set AdhesiveFor interior wall base installations that require a more aggressive bond over porous substrates only |
|  | Product Name:Product Description:Product Usage: | **C-630**Water-Based Contact AdhesiveFor interior wall base installations that require a more aggressive bond over porous or non-porous substrates. |

* + - 1. **MAINTENANCE PRODUCTS:**
				1. **Cleaners**

|  |  |  |
| --- | --- | --- |
|  | Product Name:Product Description:Product Usage | **NC-900**All-Purpose pH Neutral CleanerFor initial, daily or routine maintenance and spot cleaning. |
|  | Product Name:Product Description:Product Usage: | **PR-930**Performance Finish RemoverFor removal of finish that has been accidentally or erroneously applied to material. |

1. **EXECUTION**
	* + 1. **General**
				1. **General Contractor Responsibilities:**

Supply a safe, climate controlled building and subfloor as detailed in Roppe Technical Data Sheets.

Ensure substrate meets the requirements of ASTM F710, Roppe Technical Data Sheets and Excelsior Technical Data Sheets.

Ensure horizontal concrete substrates have been tested per ASTM F2170 and/or ASTM F1869 to confirm that concrete relative humidity and/or moisture vapor emission rates are within tolerance of the approved adhesive.

Confirm the porosity of all substrates to ensure proper adhesive usage.

Provide a secure storage area that is maintained permanently or temporarily at normal operating temperature and humidity conditions (except walk in freezers or similar) between 65° F and 85° F and between 40% and 65% relative humidity, for at least 48-hours prior to and during the application of the flooring, so the flooring contractor can acclimate the flooring materials per manufacturer’s instructions.

Provide an installation area that is weather tight and maintained either permanently or temporarily at ambient service temperature and humidity (except walk in freezers or similar), normal operating temperature and humidity conditions (except walk in freezers or similar) between 65° F and 85° F and between 40% and 65% relative humidity, for at least 48-hours prior to and during the application of the flooring per the manufacturer’s instructions.

Ensure areas with direct prolonged exposure to sunlight are protected with protective UVA/UVB restrictive coatings or films.

Areas of the flooring that are subject to direct sunlight through doors or windows should have them covered using blinds, curtains, cardboard or similar for the time of the installation and 72-hours after the installation to allow the adhesive to cure. Note: These areas should be installed using wet adhesives only.

Protect newly installed flooring with construction grade paper or protective boards, such as Masonite or Ram Board, to prevent flooring damage, especially by other trades. Limit usage and foot traffic according to the adhesive’s requirements. When moving appliances or heavy furniture, protect flooring from scuffing and tearing using temporary floor protection.

Ensure furniture casters are made of a soft material and have a contact point of at least 1” in width to limit indentation and flooring damage. All rolling chairs or seating must have a resilient flooring chair pad installed over the finished floor to protect floor covering. All fixed furniture legs must have permanent felt or soft rubber floor protectors installed on all contact points to reduce indentation. Floor protectors must have a flat contact point of at least 1” in width and must cover the entire bottom surface of the furniture leg.

Conduct initial maintenance prior to final usage per the Roppe Care & Maintenance Documents. Do not conduct initial maintenance until adhesive has cured per the adhesive technical data.

* + - * 1. **Flooring Contractor Responsibilities:**

Provide trained installers that are professional, licensed, insured and acceptable to manufacturer of resilient flooring materials.

Ensure installers or installation teams meet one of the following requirements:

Have completed INSTALL (International Standards & Training Alliance) or CFI (Certified Floorcovering Installers) training programs and/or are certified by INSTALL or CFI.

Are being supervised by Project Managers or Field Supervisors that are INSTALL (International Standards & Training Alliance) certified, CFI (Certified Floorcovering Installers) Certified and/or an FCICA (The Flooring Contractors Association) CIM (Certified Installation Manager).

Follow all requirements in the appropriate Roppe and/or Excelsior Technical Data Sheets, Care & Maintenance Documents, Warranties and other technical documents or instructions.

* + - 1. **EXAMINATION**
				1. **General:** Follow guidelines laid out in Division 01, Section 017100 – Examination and Preparation, as well as Section 014300 – Quality Assurance.
				2. **Verification of Conditions:** Inspect all substrates to ensure they are clean, smooth, permanently dry, flat, and structurally sound.
			2. **SUBSTRATE PREPARATION**
				1. **General:** Follow guidelines laid out in Division 01, Section 017100 – Examination and preparation. All work required to ensure substrate or subfloor meets manufacturers guidelines are the responsibility of the general contractor.
				2. **Preparation:** Ensure substrate meets the requirements of ASTM F710, Roppe Technical Data Sheets and Excelsior Technical Data Sheets. Substrates must be free of visible water or moisture, dust, sealers, paint, sweeping compounds, curing compounds, residual adhesives and adhesive removers, concrete hardeners or densifiers, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and any other extraneous coating, film, material or foreign matter.
			3. **INSTALLATION**
				1. **General:** Follow all relevant guidelines detailed in Division 01, as well as flooring and adhesive manufacturer’s technical data sheets.
				2. **Interface With Other Work:** If caulking or sealing is required after installation, please contact the manufacturer for a suitable, matching caulk.
			4. **CLEANING & MAINTENANCE**
				1. **General**: Clean up installation area and sweep, dust or wipe material to remove any dirt, dust or debris.
				2. **Initial Maintenance:** Conduct initial maintenance per the manufacturer’s Care & Maintenance documents (www.roppe.com).
			5. **Closeout Activities**
				1. **General:** Follow all federal, state and local requirements and Division 01 Section 017600 – Protecting Installed Construction and Section 017800 – Closeout Submittal requirements for these activities.
				2. **Protection:** Protect newly installed material with construction grade paper or protective boards, such as Masonite or Ram Board, to protect material from damage by other trades. Limit usage and foot traffic according to the adhesive's requirements. When moving appliances or heavy furniture, protect wall base from scuffing and tearing using temporary floor protection.

**END OF SECTION**