

SECTION 096516 – RESILIENT SHEET FLOORING

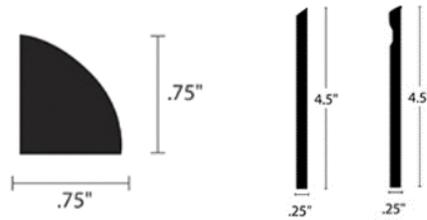
PART 1 – GENERAL

- SUBMITTALS
 - Product Specification
 - Specification for Adhesive
 - Floor Layouts
 - Samples
 - Schedule
 - Qualifications for Installer
- CLOSEOUT SUBMITTALS
 - Maintenance Instructions
 - Warranty
- QUALITY ASSURANCE
 - Environmental:
 - FloorScore® Certified
 - Environmental Product Declarations
 - Health Product Declaration
 - Installer Qualifications: Installer who has been trained in the installation of resilient sheet flooring.
 - Mockups: Install 100 sf of product at designated location for architect review and approval.
- MATERIAL STORAGE AND HANDLING
 - Store rolls standing upright; do not lay rolls down for long periods.
 - When more than one roll of a color is being installed, all material should be from the same batch and the rolls must be installed in consecutive order. If material from more than one batch is to be used, the job should be laid out so that different batch numbers are not installed side by side.
 - Flooring material and adhesive must be acclimated to the installation area for a minimum of 48 hours prior to installation at a temperature between 65°F and 85°F.
- SITE CONDITIONS
 - The permanent HVAC system must be operational and set to a minimum of 65°F or a maximum of 85°F for a minimum of 7 days prior to, during and after installation.

PART 2 – PRODUCTS

- TESTING REQUIREMENTS
 - Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. Cm.
- HOMOGENEOUS VINYL SHEET FLOORING WITH REINFORCED BACKING
 - Manufacturer: Patcraft
 - Product: holistic shades, I690V
 - Wear-layer Thickness: 0

- Overall Thickness: 0.078740157480315 in (2 mm)
- Dimensions: 78.74 in x 65.616 in
- Wear Surface:
- Seamless Installation Method: Heat Welded
- Colors and Patterns: As selected by the architect
- INSTALLATION MATERIALS
 - High Moisture Management Solutions (10 Year Warranty)
 - **Concrete with %RH <99%, MVER <=10, pH < 11**
 - Apply USG Advanced skim coat as necessary for patch/skim coat.
 - Install flooring with Shaw 4151* adhesive.
 - **Concrete with %RH >= 99%, MVER <=12, pH <= 12**
 - Apply Shaw Surface Prep EXT followed by Shaw Moisture Shield.
 - Apply USG Advanced skim coat as necessary for patch/skim coat.
 - Install flooring with Shaw 4151* adhesive.
 - **Concrete with %RH >= 99%, MVER <= 17, pH > 12**
 - Apply Surface Prep
 - Apply Shaw Moisture Shield.
 - Apply MRP
 - Apply USG Advanced Skim Coat as necessary for patch/skim coat.
 - Install flooring with Shaw 4151* adhesive
 - **Concrete with %RH >= 99%, MVER >17, pH > 12**
 - Apply Shaw Surface Prep EXT followed by Shaw MoistureTek.
 - Apply USG Advanced skim coat as necessary for patch/skim coat.
 - Install flooring with Shaw 4151* adhesive.
 - Adhesives:
 - Shaw 4151 for high moisture 99% RH 10 lbs. pH 12
 - Primer: Shaw 9050
 - Leveling and Patching Compounds: Use only Portland-based patching and leveling compounds. Do not install resilient flooring over gypsum-based patching and/or leveling compounds.
 - Shaw MRP: Barrier Primer over concrete, Old Cut Back Adhesive, Chemically Abated Floors or other solid surfaces
 - Seam Sealer: Shaw 4062
 - Weld Rods
 - FinishWorx Transition Strips (Micro Transition, Metal TrimMaster)
 - FinishWorx Wall Base Accessories
 - FinishWorx Cove Base Accessories:



- Angle Profile
- Detail Profile
- Quarter Round Profile

PART 3 – EXECUTION

• EXAMINATION

- Ensure that moisture tests have been conducted and that the results do not exceed 90% In-Situ relative humidity when tested according to ASTM F 2170.
- PH of concrete sub-floor surface is no greater than 10.
- The permanent HVAC system turned on and set to a minimum of 68°F (20°C) for a minimum of 72 hours prior to, during and after installation. After the installation, the temperature should not exceed 100°F.
- Flooring material and adhesive need to be acclimated to the installation area for a minimum of 48 hours prior to installation.
- Refer to adhesive label for proper roller or trowel requirements
- Material should always be visually inspected prior to installations. Any material installed with visual defects will not be considered a legitimate claim as it pertains to labor cost.
- Install all cuts and rolls in consecutive sequence.
- Ensure that all recommendations for sub-floor and job site conditions are met prior to beginning the installation. Once the installation has started, you have accepted these conditions.

• PREPARATION OF SUBSTRATE

- All substrates to receive resilient flooring shall be dry, clean, smooth and structurally sound. They shall be free of dust, solvent, paint, wax, oil, grease, residual adhesive, adhesive removers, curing, sealing, hardening, or parting compounds, alkaline salts, excessive carbonation or laitance, mold, mildew and other foreign materials that might prevent adhesive bond.

• RADIANT HEAT

- Substrates must not exceed 85°F surface temperature.
- Seven days prior to installing resilient products, activate the radiant system at maximum temperature to reduce residual moisture in the concrete.
- 24 hours prior to installation, lower the temperature to 70°F and maintain that temperature for 48 hours after installation.
- Ensure the floor does not exceed 85°F. An in-floor temperature sensor is recommended.

• WOOD SUBSTRATES

- Double-layered APA rated plywood subfloors should be a minimum 1" total thickness, with at least 18" well ventilated air space beneath. Insulate and protect crawl spaces with a vapor barrier.
- Do not install over sleeper construction subfloors or wood subfloors applied directly over concrete.
- Underlayment panels can only correct minor deficiencies in the sub-floor while providing a smooth, sound surface on which to adhere the resilient flooring.
- Any failures in the performance of the underlayment panel rests with the panel manufacturer and not with Shaw Industries, Inc.
- It is recommended that your chosen APA underlayment grade panels be designed for installation under resilient flooring and carry a written warranty covering replacement of the entire flooring system.
- Always follow the underlayment manufacturer's installation instructions.
- STRIP – PLANK WOOD FLOORING
 - Due to expansion and contraction of individual boards during seasonal changes add 1/4" or thicker APA rated underlayment panels be installed over these types of subfloors.
- CONCRETE
 - New or existing concrete subfloors must meet the guidelines of the latest edition of ACI 302 and ASTM F 710.
 - On or below-grade slabs must have an effective vapor retarder directly under the slab.
 - Wet curing 7 days is the preferred method for curing new concrete.
 - Remove curing compounds 28 days after placement, so concrete can begin drying.
 - Concrete floors shall be flat within 3/16" in 10 ft. F-Number System: Overall values of FF 36/FL 20 may be appropriate for resilient floor coverings.
 - Internal relative humidity may not exceed 90% RH.
- LIGHTWEIGHT CONCRETE
 - All recommendations and guarantees as to the suitability and performance of lightweight concrete under resilient flooring are the responsibility of the lightweight concrete manufacturer. The installer of the lightweight product may be required to be authorized or certified by the manufacturer. Correct on-site mixing ratios and properly functioning pumping equipment are critical. To ensure proper mixture, slump testing is recommended.
 - Lightweight aggregate concretes having densities greater than 90 lbs. per cubic foot may be acceptable under resilient flooring.
 - Concrete slabs with heavy static and/or dynamic loads should be designed with higher strengths and densities to accommodate such loads.
 - Surface must be permanently dry, clean, smooth, and free of all dust and

structurally sound.

- RESILIENT FLOOR COVERING
 - Must be single layered, non-cushion backed, fully adhered and smooth.
 - Must show no signs of moisture or alkaline substances.
 - Waxes, polishes, grease and grime must be removed.
 - Cuts, cracks, gouges, dents and other irregularities in the existing floor covering must be repaired or replaced.
 - Note: The responsibility of determining if the existing flooring is suitable to be installed over rests solely with installer/flooring contractor on site. If there is any doubt as to suitability, the existing flooring should be removed or an acceptable underlayment installed over it. Installations over existing resilient flooring may be more susceptible to indentation.
- POURED FLOORS (Epoxy, Polymeric, Seamless)
 - Must be totally cured and well bonded to the concrete.
 - Must be free of any residual solvents and petroleum derivatives.
 - Waxes, polishes, grease and grime must be removed.
 - Cuts, cracks, gouges, dents and other irregularities in the existing floor covering must be repaired or replaced.
 - Texture must be smooth.
 - Must show no signs of moisture or alkaline substances.
- OLD ADHESIVE RESIDUE
 - If the adhesive residue is asphalt-based (cut-back) or any other type of adhesive is present, it must be dealt with in one of two ways:
 - It may be mechanically removed such as bead blasting or scarifying;
 - A self-leveling Portland based underlayment may be applied over it. Check with the underlayment manufacturer for suitability, application instructions and warranties.
 - Never use solvents or citrus adhesive removers to remove old adhesive residue. Solvent residue left in and on the sub-floor may affect the new adhesive and the new floor covering.
- INSTALLATION
 - CUTTING AND FITTING SHEETS
 - In most cases, a qualified installer will be able to freehand knife the material in areas where base or trim moldings will be installed after the installation is completed.
 - Cut the required length off the roll, including enough to run up the wall 2” at either end.
 - Push the length of the sheet as close to the starting wall as possible, letting the extra length run up the wall at the far end.
 - Once material is positioned, allow 20 to 30 minutes for the material to relax and acclimate to the room temperature.
 - Freehand knife or scribe the shape of the wall onto the flooring.
 - Push the fitted sheet lightly against the wall.
 - Continue freehand knifing around the room.

- Once floor has been cut in lap back $\frac{1}{2}$ the floor and apply the adhesive. Follow directions on the adhesive for application and place vinyl into adhesive. DO NOT FLOP MATERIAL IN—air will be trapped, causing bubbles.
- Recess scribe the seams using either the scribe blade or scribe pin.
- Hold the knife blade straight up and down to make the final cut. DO NOT UNDERCUT.
- Repeat the same procedure for additional seams in the room.
- Massage curl the end joints to ensure they lay flat. Weighting the end joints will ensure proper bonding.
- Roll floor within 6” of the seam on either side with a 3-section 100 lb. roller. Roll the seam area with a hand-seam roller to bring the seam edges to equal heights. Re-roll the floor within the working time of the adhesive. Continue to roll the floor throughout the working day to ensure a proper bond.
- Heat weld the seams the following day.
- SEAMING INSTRUCTIONS
 - After adhesive is rolled on and completely dry, position the flooring by over-lapping the seam edges, making sure to match the pattern.
 - With a straight edge and a sharp utility knife, cut through both layers of flooring material (double-cut) at the designated match point. Make sure the utility knife blade is held in an upright position for a clean 90 degree cut.
 - Remove and discard waste material.
 - Fold back about 8” of the vinyl on one side of the seam and apply a small bead of SHAW 4062 Premium Seam Sealer to one edge of the vinyl that is on the floor.
 - Tuck the seam edges together and wipe off excess sealer with a clean, damp cloth.
 - Use a resilient flooring type hand roller (or wallpaper seam roller) to squeeze out any remaining sealer from the seam. Immediately clean seam with a damp cloth followed by a clean, dry cloth.
 - Protect the seam and allow it to dry (approximately 6 hours).
 - Use floor protection after installation. DO NOT use a plastic adhesive based protection system.
- HEAT WELDING
 - The welding rod (4mm) will melt at the same temperature as the sheet flooring, fusing them together.
 - Seam edges should be slightly gapped and vertical. Wide, gapped or undercut seams will prevent quality welds.
 - With a 3.5 mm grooving tool, cut a groove $\frac{1}{2}$ to $\frac{2}{3}$ the thickness of the material. The groove must be centered along the two edges.
 - Clean grooves of all foreign contamination, including dust.
 - Use professional welding equipment with a narrow 4 mm tip.

- Preheat the welding gun to 750°.
 - Practice on a scrap piece. Once the rod is sealed, it should not pull out of the groove.
 - Tip must remain parallel to the floor. A small ridge must form of either side of the welding rod at the vinyl surface.
 - While the rod is still warm, trim off ½ of the excess rod with a spatula knife or Mozart skiver and trim plate in one continuous movement.
 - After the rod has cooled to room temperature, make the final trim pass.
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- MAINTENANCE
 - Initial Maintenance
 - Sweep, vacuum or dust mop to remove dirt and grit.
 - If needed, add neutral cleaner to cool water following the manufacturer's instructions.
 - Scrub with a low-rpm machine or auto scrubber. Use a red pad or brush.
 - Never use brown or black pads (too aggressive and can damage the product)
 - Remove the cleaning solution with a wet-dry vacuum or auto scrubber until the floor is dry.
 - Rinse the floor with clean water. Repeat the rinse process if necessary to remove all haze.
 - Routine Maintenance
 - Sweep, vacuum or dust mop to remove dirt and grit.
 - Add neutral pH cleaner to cool water following the manufacturer's instructions.
 - As needed, scrub with a low-rpm machine or auto scrubber to retain appearance. Use a red (light scrubbing) pad and neutral cleaner following the manufacturer's instructions.
 - Preventative Floor Care
 - Use walk-off mats that are as wide as the doorway and long enough for soil load and weather conditions.
 - Use mats with a non-staining backing.
 - Floor protectors should be used on all furniture legs.
 - The surface area of the floor protectors should be no less than 1" in diameter.

END OF SECTION 096516