

## Natchez 2.0mm SPC Installation Instructions

**General Information & Limitations:** Natchez 2-mm is a luxury vinyl floor covering designed to be installed in residential indoor applications only. All installations must be performed by a qualified flooring contractor with enough general liability insurance coverage for the project. The optimal site conditions are between 60° F to 80° F (16° C to 27° C). Avoid prolonged exposure to direct sunlight or other heat sources where temperatures will exceed 90° F (32° C), as damage or deformation may occur. Use non-rubber backed entrance matting at all outdoor entrances, as this will improve air quality and reduce maintenance. If required or concerned, immediately contact Powerhold at 844-638-4583 or visit [powerhold.com](http://powerhold.com) for assistance. Copies of ASTM documents are available for purchase at [www.astm.org](http://www.astm.org).

**Receiving Material & Storage:** Confirm the color, style and quantity, and lot numbers. Carefully check all materials for shipping damage. Note any damage on the bill of lading before signing for the delivery. Visible damage not reported on the bill of lading is the receiver's responsibility. The floor covering, adhesive and accessories must be stored in dry indoors conditions between 40° F - 90° F (4° C - 32° C). Do not store outside (even in containers) and do not stack pallets.

**Recommended Tool List:** Appropriate Personal Protective Equipment (PPE) including safety glasses, gloves and suitable dust mask. Appropriate tools to prepare the substrate, HEPA-filtered vacuum, 6-foot and 1-foot straight edge or level, two U.S. quarters (coins), tape measure, pencil, speed square, utility knife with blades, chalk-line, adhesive trowel with enough 1/16-inch x 1/32-inch x 1/32-inch U-notched trowel (FFA) replacement blades (1-per 4-gallons), 100 lb. three-section roller, heat gun, Oscillating Multi-Tool or hand saw (door jambs), non-contact infrared thermometer, and knee pads.

**Warning:** All local, state, and federal regulations must be followed; this includes the removal of in-place asbestos (floor covering and adhesive) and any lead-containing material. The Occupational Safety and Health Administration (OSHA) has exposure limits for people exposed to respirable crystalline silica; this requirement must be followed. Do not use solvent or citrus-based adhesive removers. When appropriate, follow the Resilient Floor Covering Institute's (RFCI) Recommended Work Practice for Removal of Existing Floor Covering and Adhesive. Always wear safety glasses and use respiratory protection or other safeguards to avoid inhaling any dust. The label, installation, and maintenance instructions along with the technical data sheet, limited warranty and any appropriate Safety Data Sheet (SDS) of all products must be read, understood, and followed before installation commences. If the substrate or subfloor fails for any reason, then the floor covering limited warranty is void.

Do not leave spills unattended - wipe up promptly, and allow the floor covering to dry before trafficking. Use bathmats and install safety handrails where this floor covering is used next to wet or barefoot areas, like showers and baths.

**Documentation:** Record and file the measured and observed site conditions and test results, including all photographs and corrective measures. Maintaining this documentation, along with the original invoice

and any labor receipts throughout the warranty period, is recommended, as this will be required in the unlikely event of a claim.

**Mat Bond Evaluations:** These are only required if specified or the suitability of the substrate or preparation method is in question. Follow the protocol of the ASTM F3311 Standard Practice for Evaluation of Performance and Compatibility for Resilient Flooring System Components Prior to Installation.

**Site Conditions:** The area to be installed must be fully enclosed and weather tight and protected from temperature fluctuations. Use a permanent or temporary HVAC system to control the site conditions, set at the in-service or in-use temperature and be constant ( 5° F) for 48-hours before, during and after the installation. The ambient relative humidity must be between 35% and 65% and 10° F above dew point, with temperatures rising – dew point calculators are available on the internet. Failure to ensure these conditions are met could affect adhesive curing and flooring stability. If these site condition requirements cannot be met, please contact the technical department for project-specific instructions.

**Radiant Heated Substrates:** When installing floor covering over a substrate that contains a radiant heating system, ensure the radiant heat does not directly contact the floor covering and is set at the correct “in-service” temperature for 48-hours prior, during and after the installation. The radiant heat may be gradually increased or decreased to maintain the correct “in-service” site conditions. Any rapid changes to the temperature of radiant heating systems may cause thermal shock, resulting in a bond failure. Ensure the temperature of the radiant heating system does not exceed 85°F (29°C).

**Flatness:** Check all substrates for flatness prior to installation. The maximum acceptable tolerance is < 1/8-inch gap (2 x U.S quarters) underneath a 6-foot straight edge or level and < 1/16-inch gap (1 x U.S quarter) over 1-foot. Make any necessary and appropriate adjustments to the substrate before installation.

**Concrete Subfloors:** All concrete must be free of contaminates and structurally sound. If required, smooth the surface using a suitable, moisture-resistant commercial grade leveling or patching compound, following the product instructions. Do not install if hydrostatic pressure is visible, present or suspected. If a chemical adhesive remover has been used, contact the technical department.

Do not install over any expansion or moving joints as any subfloor movement may cause an installation failure. When required, use a suitable industry-standard expansion joint covering system. Permanently dormant cracks and saw cuts are acceptable to install over, but must be cleaned, removing all dirt and debris, and filled with a suitable moisture-resistant crack filler or repair compound, following the product instructions.

**Concrete Moisture:** On and below-grade concrete subfloors must all have a confirmed and effective vapor retarder installed directly underneath the slab which meets the requirements of the ASTM E1745 Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs. If this cannot be confirmed, use an appropriate Concrete Moisture Mitigation System (section below).

When not using a Concrete Moisture Mitigation System, all concrete subfloors, including those with silicate admixtures or topical treatments, must be tested for moisture. Follow the protocol of the ASTM

F2170 Standard Test Method for Determining Relative Humidity in Concrete Slabs using in-situ Probes". If the results exceed 85% RH, use an appropriate Concrete Moisture Mitigation System (section below).

While it may not be the flooring contractor's responsibility to conduct moisture test, the flooring contractor is responsible for confirming that testing has been performed and that the provided results are acceptable before installation. Moisture testing should be performed by an International Concrete Repair Institute (ICRI) certified technician ([www.icri.org](http://www.icri.org)).

**Concrete Moisture Mitigation System:** When appropriate, use a dimensionally stable surface applied concrete moisture mitigation system that when tested according to "ASTM E96 / E96M Standard Test Methods for Water Vapor Transmission of Materials" (Method B), has a permeability value of 0.1

grains/foot<sup>2</sup>/hour, confirm with the manufacturer before use. In addition, it must be compatible with both the substrate and surface preparation or adhesive being used. Unless positive, perform "Mat Bond Evaluations" following all product instructions. The liability and warranty for the performance of any product remains with its manufacturer.

**Wood Subfloors:** All wooden subfloors and substrates must be dry and in compliance with the moisture content percent (MC-%) for your region. Regional values are freely available by searching "moisture map of wood" images. Test using a non-destructive electronic moisture meter, following the product instructions.

**The subfloor must comply with local building codes, have at least 18-inches of well-ventilated air space below and have a suitable vapor retarder to isolate the subfloor from ground cover and outdoor conditions. Wood subfloors must have a total thickness of at least 1-inch. Sleepers must not make direct contact with concrete or earth. If necessary, install an underlayment grade plywood with a minimum thickness of 1/4-inch on the surface. The underlayment must be installed in the opposite direction to the subfloor, following the ASTM F1482 Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring.**

Note: Plywood is porous, therefore the seams may telegraph through any flexible resilient flooring, due to the natural expansion and contraction from humidity changes. This is not covered by the product limited warranty.

**Gypsum Subfloors:** Any finished gypsum substrate must be prepared and installed in accordance with the ASTM F2419 Standard Practice for Installation of Thick Poured Gypsum Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring or the ASTM F2471 Standard Practice for Installation of Thick Poured Lightweight Cellular Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring. The substrate must also be dry, structurally sound, firmly bonded and free of contaminants.

**Unsuitable Substrates:** These include, but are not limited to: any floating or loose floor coverings, hardwood, carpet, cushion vinyl, rubber, cork, foam, asphalt tile; any substrate with visible mold, mildew, or fungi and any substrate in wet areas, such as inside showers and saunas; substrates that have been coated with a varnish or oil-based, enamel, paint, primer, primer-sealer or stain-blocker; and substrates made of Masonite™, chipboard, wafer board, fiberboard, particleboard, construction-grade plywood, CDX, OSB (including AdvanTech™), Luan, cement board or any non-underlayment grade panels must be removed and replaced or covered with an

underlayment grade plywood. Do not use pressure-treated or fire-retardant plywood. Do not install directly over any adhesive residue of any kind. Do not install in recreation vehicles, campers or boats.

Electing to install over any existing floor covering, assumes full responsibility for the suitability and continued performance of that product, including any resulting effect on the new floor covering like its debonding and excessive indentations.

**Other Subfloors/Substrates:** These may be acceptable. However, they must be and remain dry, without contaminants and be structurally sound.

**Acclimation:** Depending on the temperature of the floor covering, an extended acclimation period may be required. Check the temperature of the floor covering using a non-contact, infrared thermometer - the floor covering must be at the same temperature as the required site conditions ( 2° F) before installation.

**Layout:** Follow the design or drawings provided or agreed upon by the designer, architect, or end-user. Measure the width of each end of the area, then calculate and mark your starting line, which should be near the center of the room. Calculate the width of the last row – if it is less than half the width of the floor covering, adjust your starting line by half the width of the flooring. The end joint recommended layout for planks is random – avoid the undesirable “stair stepped” appearance. Tiles are recommended to be installed either in a brick-bond or a 1/3<sup>rd</sup> off-set pattern.

**Cutting:** To cut the floor covering, measure and mark the surface with a pencil, then carefully score the surface a few times using a sharp utility knife along the side of a speed square. Snap the plank downwards to complete cut. For complicated cuts, such as door jambs, it is recommended to use a jigsaw with a carbide blade following the product safety instructions.

**Adhesive & Coverage:** Use Powerhold 6373 adhesive, the coverage will be about 225 foot<sup>2</sup> per gallon depending upon the substrate and trowel angle.

**Preparation:** It is recommended to pre-cut the door jambs using an Oscillating Multi-Tool or hand saw so the floor covering can be slid underneath. Clean the entire area to be installed twice using a Hepa filtered vacuum.

**Adhesive Application:** Only apply as much adhesive as can be covered within the working-time (~ 2-hours). Apply the adhesive evenly to one side of the starting line using a 1/16-inch x 1/32-inch x 1/32-inch U-notched trowel (FFA) at a ~ 45° angle to the prepared substrate – be sure that your starting lines remains visible. Avoid skips, puddles or sharp trowel turns. Replace trowels every 4 gallons to ensure even coverage - do not re-notch trowels. Do not install the floor covering into wet adhesive if the substrate is non-porous.

**Installation:** Mix floor covering from several boxes to ensure a consistently random appearance. Make sure the arrows embossed or printed on the back are all pointing in the same direction. During the installation, inspect each piece for visible defects, including damage, gloss, color, or shade variations. Do not install any floor covering with visible defects or damage, as removal, subfloor repair and replacement labor costs will not be covered.

# GALLERY

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After the appropriate adhesive open time has been reached, install the floor covering, including perimeter cuts. Follow the layout and starting line, keeping all joints snug without compressing the material. The acceptable straightness tolerance is within 1/16-inch for lengths over 20-feet or 1/32 inch for lengths under 20-feet. After the first installation section is completed, roll the entire area slowly, across the width then length, using a 100 lb. three-section roller. Failure to roll correctly may result in bond failure. Repeat this process for the remainder of the installation. Immediately remove all adhesive from the surface using a clean damp cloth. If the adhesive has dried, use a small amount of 70% Isopropyl alcohol and a clean cloth to remove it.

**Protection:** If required, protect the clean floor covering from other trades or heavy loads using ½-inch plywood or similar and tape all seams. For light traffic, use Ram board, Builder Board or similar and tape all seams. For furniture, use only polyurethane, silicon or felt glides (replaced > 3-times a year), keeping them clean and grit-free – all glides should be  $\geq 1\text{-inch}^2$ , especially on heavy furniture. Use chair mats underneath rolling chairs or soft “W-type” wheels. Use non-rubber-backed entrance matting at all outdoor entrances, as this will improve air quality and reduce maintenance. Do not drag heavy or sharp objects directly across the surface - use hard surface "sliders" (available at home improvement stores). For areas that may be subjected to standing water on the surface, such as bathrooms with a bath or shower, the perimeter of the installation must be properly sealed using a 100% silicon caulk to prevent water from getting beneath the flooring. Take photographs and have any required documentation signed and filed following completion.

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