GENERAL INFORMATION

These installation specifications are for SPC by Aspen Vinyl. All recommendations are based on the most recent available information. All instructions and recommendations must be followed for satisfactory installation.

• Although acclimation is not specifically required, best installation practice recommends that the product be installed close to intended occupied service temperature, generally a target of 70° F (21°C), but at least between 55°F (13°C) and 100°F (38°C).

• SPC by Aspen Spring Vinyl is recommended for three season rooms and seasonal homes over concrete substrate. Installer must provide at least 5/8" (16mm) expansion. • SPC by Aspen Spring Vinyl is not recommended where the floor might experience temperature extremes beyond -30° F (-34° C) or greater than 155° F (68° C). Occupied use temperature range is assumed to be between 55° (13° C) and 100° F (38° C).

• SPC by Aspen Spring Vinyl can be installed up to 50' x 50' (15.2 m X 15.2 m) or total of 2500 sq. ft. (232.3 sq m) with a $\frac{1}{4}$ " (6.4mm) expansion. Larger areas must provide a 5/8" (16mm) expansion up to 100' x 100' (30.4 m X 30.4 m).

• Install SPC by Aspen Spring Vinyl only after the jobsite has been cleaned and cleared of other trade apparatus that may damage a finished installation. • Mix and install product from several different cartons to achieve desirable plank variation.

• All subfloor/underlayment patching must be done with a non-shrinking, water resistant, high quality Portland cement patching compound.

• Structural subfloor requirements must meet local building codes as well as Aspen Spring Vinyl criteria. For concrete subfloors, conformance to ASTM F 710 and for panel underlayment's conformance to ASTM F 1482.

SUBFLOOR INFORMATION

• Careful and correct preparation of the subfloor is a major part of a satisfactory installation. SPC by Aspen Spring Vinyl is designed using a "floating floor" installation method. Although SPC will bridge minor floor imperfections and gaps; heavy roughness or unevenness in the subfloor may telegraph through the new floor covering.

• All subfloors should be flat to within 3/16" (4.8 mm) in 10' (3048 mm) and 1/32" (0.8 mm) in 12" (305 mm).

• SPC by Aspen Spring Vinyl does not require an underlayment pad. It is important that the sub floor is clean and free from dirt or debris.

• Underlayment should meet the following criteria: o 1.5mm maximum nominal thickness o 6.5 #/ft3 (104 Kg/m3) minimum density o >3 psi (20.7 kpa) at 0.020" (0.5 mm) compression on foam o >50 IIC and minimum 250 psi (1724 kpa) static load as a finished floor assembly o Where higher moisture levels are present, underlayment should incorporate moisture barrier properties, ASTM E96; water method of < 1 perm

WOOD SUBFLOORS

• All wood floors must be suspended at least 18" (457.2 mm) above the ground. It is important to provide adequate cross-ventilation. Cover the ground surface of a crawl space with a suitable vapor barrier. Wood subfloors directly on concrete or installed over sleeper construction are not satisfactory for installation.

• SPC by Aspen Spring Vinyl can be installed over many wood substrates that are not suitable for fully adhered products, if they are smooth, flat, structurally sound and free of deflection, including particleboard, chipboard, flake board, OSB. Caution: Damage may occur on wood panel subfloors during construction. The suitability of these floors is the responsibility of the installer.

• If the surface of the wood subfloor is not smooth, a 1/4" (6.4mm) underlayment panel should be

installed over the subfloor. Any panels selected as an underlayment must meet the following criteria: o Be dimensionally stable o Have a smooth, fully sanded face so the graining or texturing will not show through o Be resistant to both static and impact indentation o Be free of any surface components that may cause staining such as plastic fillers, marking inks, sealers, etc. o Be of uniform density, porosity and thickness o Have a written warranty for suitability and performance from the panel manufacturer or have a history of proven performance

CONCRETE SUBFLOORS

• Concrete subfloors must be dry, smooth, and free from dust, solvent, paint, wax, grease, oil, asphalt sealing compounds and other extraneous materials. The surface must be hard and dense and free from powder or flaking.

• Surface of the slab should be flat to within 3/16" (4.8 mm) in 10' (3048 mm) and 1/32" (0.8 mm) in 12" (305 mm).

• New concrete slabs must be thoroughly dry (at least six weeks) and completely cured.

• All concrete slabs must be checked for moisture before installing material. Details for moisture testing can be found on our website. The final responsibility for determining if the concrete is dry enough for installation of the flooring lies with the floor covering installer. SPC by Aspen Spring Vinyl must never be installed where excessive moisture emissions may exist. In accordance with ASTM F1869 moisture emission from subfloor cannot exceed 8 lbs MVER (moisture vapor emission rate) per 1,000 sq. ft. per 24 hours as measured with the calcium chloride test or ASTM F 2170 In Situ Relative Humidity Test not to exceed 85%. Aspen Spring Vinyl will not assume responsibility for floor covering failure due to hydrostatic pressure or excessive moisture vapor emission. New concrete slabs must be thoroughly dry (at least six weeks) and completely cured. Although the planks are not susceptible to damage from moisture, excessive subfloor moisture can be a breeding ground for mold, mildew and fungus. All of which can contribute to an unhealthy indoor environment. The Limited Warranties do not cover issues arising from flooding, leaking plumbing or appliances, water entering through sliding glass doors, presence of mold, discoloration from mold or fungi or similar conditions.

• Holes, grooves, expansion joints and other depressions must be filled with a high quality cementitious patching & leveling compound, troweled smooth and feathered even with the surrounding surface.

• Concrete floors with a hydronic radiant heating system are satisfactory, provided the temperature of the floor does not exceed 85°F at any point. Before installing the flooring, the heating system should be turned on to eliminate residual moisture.

EXISTING FLOOR COVERINGS

• SPC by Aspen Spring Vinyl can also be installed over most existing hard–surface floor coverings provided that the existing floor is well bonded and the surface is flat and smooth.

• Ceramic tile unevenness should be made smooth by applying an overlay such as cementitious patching or leveling compound.

• Existing floors should not be heavily cushioned and not exceed one layer in thickness. • Do not install over carpet.

• Floor should be flat, smooth, dimensionally sound and free from deflection.

INSTALLATION

• SPC by Aspen Spring Vinyl is designed to be installed as a "floating" floor. Do not secure the planks to the subfloor. Always undercut wood doorjambs. Check local building code for metal door jamb. If they cannot be cut, then proper expansion must be maintained around door jamb. Do not install cabinets or kitchen islands on top of SPC by Aspen Spring Vinyl. Use care when installing wall moldings and transition strips to not fasten through the product.

1. First plank, first row. Place a spacer of 3/8" thickness to the left and position the plank against the

wall. Later, after 3 rows, you can easily position the flooring against the front wall with distances \approx 3/8".

2. Second plank, first row- place this plank gently and tight to the short end of the first one.

3. Fold the panel down in a single action movement. During the fold down, make sure the panels are tight against each other. Afterwards press down or slightly tap down at the short end just installed till it clicks. No major force is required.

4. At the end of the first row, put a spacer 3/8" to the wall and measure the length of the last plank to fit.

5. Cut with a jig saw – hardwood face turned down to eliminate/ reduce damage to the face panel. Or if cutting using a hand saw, chop saw or guillotine cutter, cut it with the hardwood visible face up. Then install it as previous plank. A utility knife can also be used for straight cuts. Score the face several passes using a speed square as a guide. Then snap the flooring- similar to scoring and snapping drywall.

6. Starting the Second row the first plank should be a min length of 10". Put a 3/8 spacer against the wall and measure the last piece. If it is shorter than 10" a new starter piece should be used. Insert the plank at an angle into the previous row and tap (on the long side) it in using a tapping block till flat.
7. General distances between short ends. Minimum distance between short ends of planks in parallel rows should not be less than 6".

8. Second plank, second row place the panel at an angle into the groove of the previous row making sure that the end of the panel is tight/flush to the short end of the previous panel.

9. Fold the panel down in a single action movement with a slight press to the left to the short end of the previous panel. Again, using the tapping block tap it against the long end into the previous row. During the fold down, make sure the panels are tight against each other.

10. As the board flattens itself to the floor, press or gently tap the top of the short end of the installed panel until it is locked. It is recommended that a soft face rubber mallet be used for tapping. The product is properly locked when the two boards are flush across the top. Finish installing this plank by tapping it with a tapping block on the long side to ensure secure installation.

. After 2-3 rows. Adjust the distance to the front wall by placing spacers 3/8" on the side walls 11. and the end wall. Once the adjustment is done against the main wall, continue to install till the last row. 12. Last row (and perhaps also first row). The Minimum width of the last plank should be NOT LESS than 2" wide. Remember distance to wall is 3/8". Tip! Put a spacer before measuring Cut the panels lengthwise and glue the short ends. See instructions below. Special installations - Small panel widths. Joining at short ends length cut panels. Cut the tongue at the same time you cut the length of the panel and install as shown above. Please note that the smallest width of a panel is 2" at the last row. If it is not, the first row width must be adjusted. This can easily be calculated when measuring the room with before installation. Cut off the locking element with a chisel, push the planks horizontally together. If necessary, place some spacers between the last panel and the wall to keep the planks together during the curing time of the glue. Radiator pipes, installation at radiators. Drill the holes ³/₄" larger than the diameter of the pipes. Cut out the panel (with the thinnest blade possible) as per diagram. Install the plank as per normal. Glue the cut out piece back again. Disassembling Your floor can very easy be disassembled, which enables replacement during installation and also during use.

13. Separate the whole row by carefully lifting up and slightly knocking just above the joint. Fold up and release the whole long side.

14. Disassemble the panels by sliding horizontally. (Do not fold up!) FINISHING THE JOB • Protect all exposed edges of SPC by Aspen Spring Vinyl by installing wall base and/ or matching moldings. Use caution to prevent the fasteners from securing the planks to the subfloor. Do not allow the floor to become pinched. Considerations for transitions should be made for substrate changes, room to room environment changes, complicated layouts, and subfloor elevation. Caulk along tubs, toilet bowls, etc. • After 48 hours, damp mop to remove residual surface dirt. Follow appropriate maintenance schedule using a quality rinse free cleaner.