INSTALLATION AND MAINTENANCE GUIDELINES

These installation specifications are for SPC (Solid Polymer Core) Rigid Vinyl Plank, HYDRO TUFF and HYDRO TUFF Plus. All recommendations are based on the most recent information available. The information on this sheet provides general guidelines. All instructions and recommendations must be followed for a satisfactory installation.

General Guidelines

1. The space where flooring is to be installed shall be fully enclosed and the permanent HVAC system shall be operational at 18° to 26° Celsius for 10 days before installation, during installation and for 10 days after installation. *Avoid dramatic and large temperature increases – No acclimation is required if not exposed to extreme temperatures in the 12 hours before installation (under 4°C or over 38°C).*
2. HYDRO TUFF SPC can be installed in areas that do not have permanent working heating and cooling systems, such as three season spaces, lake houses, unheated cabins, etc., but the temperature must be controlled as described above during installation process.
3. GREENWAY FLOORING PTY LTD recommends storing of the SPC floating product, preparation materials and accessories onsite prior to installation to ensure the products are at equilibrium with the installation environment.
4. Install Click Rigid Vinyl Plank only after the jobsite has been cleaned and cleared of other trade apparatus that may damage a finished plank installation.
5. To minimize shade variation, mix and install planks from several different cartons.
6. HYDRO TUFF floating floors should be protected from direct sunlight and not exposed to direct sunlight for extended periods of time by use of blinds, drapes or suitable window coverings or be in use in areas of large amounts of direct sunlight exposure.
7. All doorjambs must be undercut to allow for proper expansion of the product and a minimum of 13 mm gap shall be allowed for against any vertical surface or obstruction. Steel doorjambs should be patterned scribed with the 13 mm expansion spacing taken into consideration when scribing. Use of colour coordinated silicone should be used against the jamb to fill the expansion spacing and aesthetically complete the installation.
8. Do not use tapping blocks, adjustable spacers (screw type) or other tools common to hardwood and laminate flooring installation to prevent damage to the locking mechanism. A rubber mallet should be used to tap in each plank in order to fully engage the end joints.
9. HYDRO TUFF SPC flooring is designed to be installed as a “floating” floor. Do not secure individual planks or tiles to the subfloor with mechanical fasteners or adhesives. Do not install cabinets, kitchen islands or other non-movable objects on top of or through FLOORS DIRECT floating floors.

10. Use of a small, soft bristle brush to clean the joints prior to locking will ensure that there is no debris which will cause stressing or failure of the joint after interlocking the pieces together.
11. Use care when installing wall mouldings and transition strips to not fasten through HYDRO TUFF floating flooring planks or tiles. A spacing of 0.25mm shall be kept above the floor when installing mouldings over the surface of the floor.
12. SPC planks and tiles are best cut in the following ways: guillotine-type hardwood/laminate cutter; a VCT cutter (professional grade); a sabre saw with a fine-tooth wood cutting blade; a 12" power mitre saw with a shallow or negative kerf blade, similar or equal to a plastics cutting blade. If you are scoring and snapping SPC product by use of a utility knife, please note it will be necessary to score the LVT layer multiple times to ensure a good break and then shave the backing of the piece to make it smooth and even. This method may also cause the backing to crack or break off in areas close to the score line which will require using a new plank.

    *** Improper storage or acclimation of floating vinyl flooring may result in gapping or buckling of joints which are difficult to engage properly. Improper locking of the mechanism may cause one or more of the following conditions in your flooring: joints to be distressed resulting in a 'peaked' appearance; delamination due to lodging; separation of joints from extreme environmental temperature changes; cupping or side joint failures*.

SUBFLOOR INFORMATION

Approved Substrates

All substrates regardless of composition must be smooth and flat to within 4.76mm in 3m or achieve an "F32" rating by use of mechanical grinding/sanding or suitable Portland cement-based patch/level compound.

- Above, on or below grade concrete without hydrostatic pressure, excess moisture, or alkalinity; must be fully cured and dry, free from curing compounds, sealers, etc.
- Above or on grade lightweight concrete, properly prepared and without hydrostatic pressure, excess moisture, or alkalinity
- Above or on grade Gypsum concrete surfaces, properly prepared and sealed, and without hydrostatic pressure, excess moisture, or alkalinity
- APA registered underlayment, sanded face exterior grade with minimum rating of C-C plugged face
- APA registered exterior grade plywood sanded face with ratings as follows: APA A-B, A-C, B-B, B-C, C-C plugged face
- APA Approved / Rated OSB panels, minimum 1.82cm thickness, professionally installed. It is recommended to fully sand the surface of the OSB panels to ensure smooth, even

seams and reduce the surface ridges on the panels. Contact Technical Support for guidelines.

- Properly prepared and well bonded existing resilient floor covering, single layer only
- Cement Terrazzo, ceramic tile, marble – must be properly prepared.
- Certain metal floors – contact GREENWAY FLOORING PTY LTD support for assistance.
- Old adhesive residue that has been properly prepared.
- Radiant heated floors where heat does not exceed 85°F (29°C)

The following are not approved substrates for installing HYDRO TUFF SPC flooring: Rolled or panel-type foam, rubber, cork or other compressible underlayment not recommended by GREENWAY FLOORING PTY LTD rubber, cork or asphalt tiles; textured or cushion backed resilient flooring; "Sleeper" floor systems or plywood floors that have been installed directly over a concrete slab; Luanna and mahogany-type plywood panels; Masonite TM or other hardboard or fibre based underlayment; CCA (pressure treated), oil treated or other coated plywood; CDX or other plywood with knots or open defects; underlayment made of pine or other soft woods; hardwood flooring; laminate flooring; paint, wax, oil, grease, residual adhesive, mould, mildew, and other foreign materials that might prevent floating planks and tiles from natural movement; other uneven or unstable substrates.

Substrate Preparation

Although HYDRO TUFF SPC flooring is not susceptible to damage from moisture, excessive subfloor moisture is an ideal breeding ground for mould, mildew, and fungus-all of which can contribute to an unhealthy indoor living environment. If excess moisture is found in the substrate proper remediation steps should be taken prior to installation.

All substrates must be properly prepared and tested according to the following guidelines.

1. Concrete Subfloors
    1. Concrete substrates should be properly prepared according to the latest revision of ASTM F710, *Preparing Concrete Floors to Receive Resilient Flooring*.
    2. All concrete substrates, regardless of grade or age of slab, must be thoroughly tested using one of the methods outlined below for warranty to apply. Acceptable test method is the ASTM F 2170 and ASTM F1869. Testing shall be conducted according to the relevant ASTM documentation and instructions of the manufacturer of the testing equipment. Consult Technical support for RH values greater than 85% or MVER 2.45kg / 100sqm /24 hrs.
    3. Concrete Alkalinity / pH Test shall be conducted in accordance with ASTM standards. Acceptable level of pH in the substrate is between 7 and 10.

4. New concrete slabs must be thoroughly dry (at least six weeks) and completely cured. The final responsibility for determining if the concrete is dry enough for installation of the flooring lies with the floor covering installer. Although Click Rigid Vinyl Plank is not susceptible to damage from moisture, excessive subfloor moisture is an ideal breeding ground for mould, mildew, and fungus. The limited warranties do not cover discoloration from mould or from flooding, leaking plumbing or appliances, water entering through sliding glass doors or similar conditions.

2. Wood Subfloors
    1. All wood substrates should be prepared according to the latest revision of ASTM F1482 *Installation and*

       Preparation of Panel Type Underlayment to Receive Resilient Flooring.

    2. Wood panel subfloor construction shall be a minimum of 25mm in total thickness.
    3. Panels designed as suitable underlayment shall be at a minimum 6.4mm in thickness, dimensionally stable, fully sanded face to eliminate grain texture or show through and have a written manufacturer's warranty and installation instructions. Panels shall be installed according to manufacturer's instructions regarding stapling pattern, sanding and filling of joints, and acclimation to installed environment. Where not specified consult ASTM 1482 or the relevant document from the American Plywood Association.
3. Gypsum and Lightweight Cellular Concrete Substrates shall be per ASTM F2419 or F2471, respectively.
4. Existing resilient flooring must be single layer only, thoroughly stripped of all wax, floor finish, dirt, and other contaminants. Be firmly bonded to the substrate, flat and smooth with no curling edges or loose seams. Must not be of a cushion back, loose-lay, or perimeter bonded floor.
5. Adhesive residue shall be properly prepared by hand scraping, mechanical scraping or grinding be used as a primary means of removing old adhesive residue. Adhesive residues shall only be scraped by hand to remove any loose patches, trowel ridges and puddles so that only a thin residue layer remains. Residues shall be properly covered using a Portland based patching compound properly mixed with the manufacturer's recommended latex/acrylic additive. Do not use chemical adhesive removers.
6. Ceramic, porcelain, marble, and granite tiles are suitable and must be properly bonded with intact grout joints and free of cracks or loose tiles. Surface of tile and grout joints should be free from sealers, coatings, dirt, and contaminants. Properly prepare the surface of tiles by grinding any high areas and using a suitable Portland-based levelling compound and primer to fill in all low areas.

7. For any subfloors or substrates not listed please contact GREENWAY FLOORING PTY LTD Technical Services. Any surface deemed unsuitable should be covered with an approved 6.4mm wood underlayment or suitable Portland-based cement leveller or patching compound. Always follow the manufacturer's recommended practices when covering an existing substrate.

Installation and Layout

Plank Layout

HYDRO TUFF SPC product is designed to be installed as a "floating" floor. Do not secure the planks to the subfloor. Always undercut all doorjambs. Do not install cabinets or kitchen islands on top of SPC. Use care when installing wall mouldings and transition strips to not fasten through the SPC floating planks.

Layout

1. Install flooring perpendicular to direct sunlight sources, including large windows, doors, etc.
2. It is important to balance the layout of the plank format. Proper planning and layout will prevent narrow piece widths at wall junctures. Determine layout to prevent planks having less than half the width or noticeably short length pieces.
3. An 8mm spacing along all walls and all vertical surfaces must be allowed for when determining your starting plank width. On runs of flooring longer than 30 meters control joints with a suitable T-moulding are recommended to be installed with a minimum of 8mm gap between the sides of the t-moulding.
4. For areas with varied or inconsistent temperatures from other installed areas, utilization of t-mouldings between these area/rooms is recommended. A minimum of 8mm gap is to be allowed on either side of the installed track where mouldings are used; this will allow the installed areas to freely expand and contract during the extreme temperature fluctuations.
5. Dry lay a section of plank from the centre line to one wall to determine that the pattern is cantered and fit. Border cuts should be measured and should not be less than half the width of a plank. If the cut row falls under these conditions, adjust the first row at the centre line to make the centreline match the centreline of the row of planks.

2. Installing HYDRO TUFF floating vinyl flooring

Use of several 8mm spacer blocks along the first wall will ensure the proper spacing is achieved and that floor does not 'walk' back towards the wall during installation.

1. Determine if the starter row will need to cut from the Layout instructions above. It will be necessary to cut off the unsupported tongue on full planks on the edges placed against the wall so that a clean, solid edge is toward the wall.

2. Starting in the farthest left, upper corner of the room positions the first piece so that both the head and side seam groove is exposed. This requires installing the product from left to right in the room.
3. Install the second piece by lining the end joints and pressing straight down firmly and fully engage with a white rubber mallet. Be careful not to bend the corner of the piece. Maintain an expansion gap of approximately 8mm from the wall. Continue this row until the last piece is installed; utilize the cut off for starting the next row.
4. Cut the last piece in the first row to fit approximately 8mm short of the end wall. Use the cut-off of this plank to start the next row if it is a minimum of 20cm. Install the first piece in the second row by inserting the long side tongue into the groove of the piece in the first row. This is best done with a low angle (20° to 30°) of the plank.
5. If the starting wall is out of square, it will be necessary to scribe the first row to match the wall, allowing the opposite side of the row to present a true square base for the rest of the floor. When the first row is complete, you must have a straight, even base established.
6. To start the second row, cut a plank that is at least 15cm shorter than the first plank the first row. (You may use the left over from the last plank in the first row.) Then install this first plank by inserting the long side tongue into the groove of the plank in the first row. Line up the first plank of the second row so the outside end is even with the outside end of the first plank on the first row.
7. Install the second piece in the second row by locking the long side of the second row plank on the plank on the first row by inserting the tongue of the second plank into the groove on the first plank while holding the plank at a low (~ 30°) angle from the floor. Press the second plank down flat and the tongue will lock firmly into place when tapped with a rubber mallet. You should feel the tongue lock into the groove and have a smooth, even joint line.
8. After locking in place, lay the remaining planks in the row by first locking the long side in place and then tapping the end of the plank downward to firmly lock into place at the end.
9. Continue installing pieces along the wall in the second row remembering it is critical to keep these two rows straight and square, as they are the “foundation” for the rest of the installation. Check for squareness and straightness often.
10. Continue installing pieces, being certain to maintain a random appearance and offset end seams by at least 15cm. Maintain an 8mm expansion gap at all fixed vertical surfaces. Check to be certain all pieces are fully engaged; if slight gapping is noticed, the gap can be tapped closed using a scrap of flooring as a tapping block with a mallet. When fitting under door casings, etc, the flexibility and low angle of connection of Click Rigid Vinyl Plank becomes evident. If necessary, a flat pull bar or "last board puller" may be used to assist in locking the planks.

11. When fitting around obstacles or into irregular spaces, HYDRO TUFF SPC product can be cut easily and cleanly using a circular saw or reciprocating jigsaw. It is often beneficial to make a cardboard template of the area and transfer this pattern to the plank.
12. **Protect all exposed edges of the Click Rigid Vinyl Plank by installing wall moulding and/or transition strips. Use caution to prevent the fasteners from securing the planks to the subfloor.**

After Installation

1. Be sure planks are set, flat, and have tight edges.
2. If the planks must be removed, first lift the entire row at an angle to disengage from adjoined planks on the long end. Then, starting at the end, gently slide the planks horizontally to disengage on the short side. Do not angle, lift and pull the planks on the short side as this will cause breakage of the locking mechanism.
3. If the SPC plank flooring is not the last portion of the construction project, the floor must be protected from construction traffic and damage. Utilize a reinforced fibre protective board or a heavy kraft paper (min. 27 kgs.) and cover the floor.

4. Initial maintenance can be performed immediately after installation of the SPC floating flooring. Cleaning utilizing a neutral pH cleaning solution and mop is recommended. White, green, or blue abrasive pads can be used to remove heavier deposits. Rinse the floor thoroughly and allow to air dry. Do not overwater the flooring.
    13. Daily and weekly maintenance by sweeping, vacuum or dust mopping the floor as needed to remove dust loose dirt and grit. In high traffic areas this may be a daily or twice daily procedure. Use only vacuums that do not have bristle beater bars or metal heads.
    14. Clean liquid spills immediately to prevent the possibility of stains, slips or falls.
    15. Damp mop the floor as needed to remove dirt and stains. Use a neutral pH cleaner and a white, green, or blue pad if needed to remove ground in dirt. Soft white bristle brushes can also be used on flooring with embossed surfaces.