# GRAVITY/VENETO/HORIZON

# INSTALLATION GUIDELINES

\*PLEASE READ THESE INSTRUCTIONS COMPLETELY BEFORE BEGINNING THE INSTALLATION

PurParket floors must be installed in accordance with the following instructions. Failure to do so may void the product warranty. Professional installation is recommended for floating floor or nail down application, and required for glue down application.

# PART 1

# **PRODUCT USE**

This floor may be installed:

- On, above or below grade
- As a floating floor, nail down or glue down installation
- Over plywood, OSB or concrete subfloor

This floor may be installed over radiant heat if:

- The floor is installed with glue down or floating installation
- The system is a hydronic (hot water) heat system, or an electric system specifically designed for use with hardwood flooring. The electric system must be approved by PurParket prior to installation. Conform to NWFA guidelines.
- The system has an exterior thermostat in addition to interior controls.
- Species is approved. Please reference the Radiant Heat Compliance Form.
- Radiant Heat Compliance has been completed and submitted to PurParket to activate warranty.

This floor should NOT be installed in bathrooms or laundry rooms or any area with elevated humidity. Use in either of these applications will void the product warranty.

This flooring should not be installed over a solid-board subfloor (running boards).

Ensure all other trades have completed "wet work" including window/door installation, tile work, drywall, painting, HVAC activation. HVAC should be running for a minimum of 7 days prior to flooring installation

PurParket flooring is intended for indoor use only, specifically in residential and/or light commercial applications. The use of a certified installer is recommended for all installations.

#### PART 2

# PRODUCT INSPECTION

#### INSTALLER'S / OWNER'S RESPONSIBILITY

As a natural product, wood contains inherent variations in colour, grain and appearance and other visual imperfections. PurParket floors are manufactured in accordance with accepted industry standards which permit a defect tolerance that does not exceed 5%. These defects may be the result of manufacturing

or naturally occurring characteristics of the material. It is recommended that an 8% cutting or grading allowance be added to the total square footage when calculating the quantity of flooring required. It is the sole and joint responsibility of the installer and owner to conduct a quality inspection of all flooring prior to installation. All pieces of flooring should be examined for quality of manufacture, finish and colour. If the product quality is deemed unacceptable, it should not be installed.

Boards that are judged to be defective should not be installed or should be installed in an inconspicuous location where they won't be noticeable (i.e. closets, under fixed millwork). Flooring that has been installed will be deemed to have been inspected and accepted by the installer and owner, even if the owner is not present at the time of installation.

It is the sole responsibility of the flooring installer to ensure that the job site, subfloor, installation tools and materials meet or exceed all applicable industry standards. PurParket accepts no responsibility for problems that arise from incorrect or improper site preparation or installation procedures.

Check local building codes and bylaws before commencing installation to ensure compliance with local requirements. In the event of a discrepancy between local codes and manufacturer's guidelines, local codes should be followed. For further information on installation standards and guidelines, consult the National Wood Flooring Association at: www.nwfa.org

# PART 3

## SITE PREPARATION

# Installation in Newly-Constructed Home

Installation of wood flooring is one of the last jobs of a new home construction. Prior to installing a wood floor, ensure that:

- The building is completely enclosed with all outside doors and windows in place and securable, including a door from an attached garage to house interior.
- All concrete, masonry, plastering, drywall, texturing, painting and other wet work is complete and thoroughly cured and dry basements and crawlspaces are dry. Crawlspaces must have no standing water; crawlspaces must also have a vapour barrier and adequate ventilation in accordance with local building codes and NWFA guidelines.
- Gutters and downspouts are in place, directing water away from the building.
- Landscaping is directing water away from the building.
- HVAC systems are fully operational, enabling heat and humidity levels to be controlled and maintained throughout the home.
- Subfloor is properly inspected and prepared for installation.
- If installing over radiant heat, ensure that the system is in full working order and has been fully tested and running for a minimum of two weeks prior to installation. The system should be turned off for 24 hours prior to installation in the install zone. Please see Radiant Heat Compliance form for details.

# Installation in Existing Home (Renovation)

Installation in an existing home must meet the same conditions as a new home. If part of a larger remodeling project, ensure that all wet work (painting, wallpapering, texturing, etc) is completed and thoroughly dry before commencing flooring installation. In addition:

- Remove all furniture, artwork and other valuables from installation area
- Remove baseboards and mouldings.
- Undercut door casings (use a piece of the flooring as a depth gauge)
- Remove existing flooring, if necessary.
- If installing over radiant heat, it is strongly recommended that a radiant heat technician be consulted prior to installation to ensure that the heating system can be operated effectively at temperatures acceptable to the wood flooring. The system should be turned off for 24 hours prior to installation in the install zone. Please see Radiant Heat Compliance form for details.

# PART 4

# **CLIMATE CONTROL**

Conditions at the job site must be maintained with the temperature between 18-24°C (65-75°F) and humidity at 40-60% (Gravity/Veneto/Horizon Collections) before, during and after the installation.

Flooring material should not be delivered to job site until these conditions have been met and maintained for one week prior to installation if installing over plywood, and for two weeks if installing over concrete. Following installation, these conditions should be maintained at all times to ensure proper performance of the floor. See Warranty for details.

When temperature and humidity have met the conditions detailed above, material may be delivered to the job site. If stacking the boxes, cross-stack to ensure good air flow between layers. Do not open the boxes; leave closed until ready to commence the installation, and then open only as needed.

#### **ACCLIMATION**

This is the process of adjusting the moisture content of wood flooring to the environmental conditions in which it will be used are typically expected for the environment. The installer is typically the final judge that determines the appropriate acclimation requirements for each jobsite as environmental conditions vary from region to region and jobsite to jobsite. While acclimation is concerned with moisture content, it is also important to note that the flooring be in the same temperature range as the installation site. Flooring that has been warehoused or transported in very cold conditions may need to come to room temperature on site prior to commencing installation.

**PLEASE NOTE**: In areas with extreme climate conditions, it may be necessary to use humidifiers or dehumidifiers to ensure the humidity is kept within the reccomended range.

## PART 5

# SUBFLOOR PREPARATION

The installer and customer are jointly and solely responsible for ensuring that the subfloor is suitable for the flooring application and properly prepared for installation.

All subfloors must be clean, dry, structurally sound, free of squeaks and protruding fasteners, and flat to within 1/8" in 6'. All subfloors must be tested for moisture content according to NWFA guidelines, and the moisture content of both subfloor and flooring must be within allowable limits before commencing installation.

#### MOISTURE CONTENT

When the jobsite is ready for flooring installation, open several boxes of the product. Test and record the moisture content of the flooring using a reliable and accurate moisture testing device. Wood flooring should have a moisture content between 6%-9% or as expected for the environment in which the flooring will be used. If the flooring is not within this range, allow the flooring to acclimate in a climate controlled job site until the moisture content comes to an acceptable range.

Plywood or OSB subfloors must meet local building code requirements (US: minimum 3/4" T&G Exposure 1 rated\* plywood or 23/32" T&G Exposure 1 rated OSB. Canada: minimum 5/8" T&G Exposure 1 rated plywood or 23/32" T&G Exposure 1 rated OSB installed over joists 16" on centre or less.). They must be secure to the joists, free of squeaks and protruding fasteners. Subfloor moisture content must not exceed 12%, and the variance in moisture content between the subfloor and the flooring boards must not exceed 2 percentage points.

\* Exposure 1 Rating: Exposure 1 panels are suitable for uses that are not permanently exposed to the weather, but where panels must resist effects of moisture due to construction delays, high humidity, or other conditions of similar severity.

**Concrete** subfloors must be dry, clean and free of non-compatible sealers, waxes, oil, paint, drywall compound, or other bond-breaking substances. They also must be fully cured (60 days) prior to installation. Check for the presence of sealers by applying drops of water to the slab. If the drops bead up, there may be sealers or oils on the surface.

Moisture content of the slab should not exceed 3 lb. /1000 sq. ft. / 24 hours, or as specified by the NWFA for the region and concrete material involved. **Wakol PU 280** is recommended by PurParket as a moisture barrier to seal concrete subfloors from excess moisture. If the flooring is being installed over a radiant heating system, moisture content of the slab should not exceed 2 lb. /1000 sq. ft. / 24 hours. The system should be turned off in the installation zone for 24 hours before installation begins and left off for the duration of the installation period.

#### PART 6

#### **COLOUR RACKING**

Real wood flooring contains natural variations in colour and grain pattern. In order to prevent colour "grouping" or repetitive grain patterns in the finished floor, it is recommended that boards be racked (visually sorted) before installation to create a satisfactory and pleasing colour arrangement. Immediately prior to installation, unpack 5 to 6 cartons to get a sense of the range of colour variation and position the planks to achieve a satisfactory appearance.

#### IMPORTANT NOTE FOR ALL INSTALLATIONS:

Avoid "H" patterns, stair-steps and other discernable patterns in adjacent rows. For products up to 5" in width, stagger butt joints a minimum 8"-10" and do not use boards less than 6" in length. For products over 5" in width, stagger butt joints a minimum 10" and do not use boards less than 12" in length.

When racking, inspect all boards for visible manufacturing defects. Boards with manufacturing defects in excess of industry standards (5% of total quantity) may be replaced by the dealer under the terms of the product warranty. Once installed, boards will be considered to have been accepted by the customer and will not be eligible for replacement. (See Warranty for details)

#### PART 7

# **EXPANSION SPACE**

Wood flooring will expand and contract with changes in ambient temperature and humidity. To allow for this, during installation leave a 1/2" expansion space around the entire perimeter of the floor between the flooring and the walls. Also leave expansion space where the flooring will meet any vertical obstacle, such as stairs, pipes, door sills, tiles, cabinets etc.

**PLEASE NOTE**: In climates with extreme variations in humidity (beyond the range of 35 to 55%), or in large installations (800+ feet), a larger expansion space may be required.

#### PART 8

#### NAIL DOWN INSTALLATION: TOOLS & RECOMMENDATIONS

Nail down installation requires three different nailing systems:

- A pneumatic or manual nail gun
- A pneumatic finish nailer
- A brad nailer for top nailing

The recommended fastener is a 2", 16 gauge cleat spaced 4"-6" apart and 1"-2" away from the end of the board. A nail down installation requires glue assist. For more information on glue assist, please contact your PurParket dealer.

#### **GLUE ASSIST**

Ensure subfloor is cleaned and free of any debris that can reduce the bond of the flooring adhesive. We recommend Wakol MS 262 tubed adhesive. Run beads perpendicular to the direction you are installing the floor (approx. 8"-10" apart) or use a "lazy-s" technique. Only run glue in short lengths to avoid curing of the adhesive before you have installed the wood flooring.

PLEASE NOTE: While wide plank flooring can be installed with nail down installation, it is not the recommended method. If you are installing these products with nail down installation, follow the recommendations for the fastener selection and nailing schedule, glue assist with an MS Polymer flooring adhesive. Failure to follow instructions for "glue assist" may result in squeaking and/or other objectionable floor noise. Such noise is not the result of a product defect and is not covered by the product warranty. Some noise can be expected on all nail down installations.

If the installation is over an unfinished crawlspace, basement or exterior space (i.e. a garage), nail down installation of this product is not an option. Installation in this situation requires a vapour retarder. The use of a vapour retarder is incompatible with the glue assist procedure required for this product. If installing over an unfinished crawlspace, basement or exterior space, use an alternate installation method recommended for the product. For boards wider than 5" it is good practice to apply a proper T & G (non-crystallizing) adhesive to the end joints.

#### PART 9

#### INSTALLATION

Check the nail gun to make sure the depth is set for the appropriate thickness of the flooring. Ensure the nailer is not scratching the floor surface. Test nail a piece of scrap to make sure the nailer is correctly setup, and that the fasteners are being properly positioned and set.

# STARTING WALL

All wood flooring installations require that the flooring be installed in perfectly straight rows parallel to the starting wall. To verify that the starting wall itself is straight, measure out 12 inches from each end of the wall and snap a chalk line parallel to it. Measure the distance from the line to the wall every 2 or 3 feet. If it is consistent, the wall is straight. If there is a variance anywhere of more than a quarter inch, cut the first row of floor boards to match the shape of the wall.

Verify moisture content of both subfloor and flooring is within allowable limits before commencing installation. Open 5 to 6 packages of flooring and rack and inspect boards. (See Colour Racking above.) Select your starting wall and verify straightness as described above. Set the first row in place with the groove side facing the wall. As a guide, measure in from the chalk line used to check the straightness of the wall to the finished top edge of the board. Remember to allow expansion space. Set joints closed using a white rubber mallet or hammer and tapping block. Never use a hammer directly on the tongue and groove joints as damage to the joint may result. Clean up excess glue immediately according to glue manufacturer's instructions.

Using a pneumatic finish nailer, blind nail along the tongue edge at a 45° angle. Space nails every 4" to 6" along the length of the boards. Ensure there is a nail 1" to 2" from each end of each board, but do not put nails less than 1" from the end of the board as splitting may result. At the end of the row, cut a board to fit, allowing ½" expansion space. Top nail along the groove edge with the brad nailer using minimum 1½" 18 gauge fasteners set 10"-12" apart, with the fastener 1"-3" from each end of each board. Keep the nailer perpendicular to the direction of the flooring and set nails no less than ¼" in from the edge of the board. Set the second row in place and set the tongue and groove joints. Use offcuts if lengths are suitable and stagger butt joints as required. Apply Glue Assist. Blind nail along the tongue as before or, if working space permits, use the nail gun.

By the third row, there should be room to use the nail gun. Continue with subsequent rows. To avoid a repetitive or predictable board pattern, cut some boards to random lengths to begin rows. Open new packages 5 to 6 at a time and rack and inspect boards as described above. Ensure 1/2" expansion space is maintained at all perimeter walls and other vertical obstacles. Maintain nailing schedule and keep butt joints staggered. It is a requirement that all butt joints are glued on the ends of the boards.

In the last couple of rows, there may not be space to use the nail gun, so revert to using the finish nailer as before, blind nailing through the tongue. For the final row, measure the gap to the wall, allowing expansion space, and rip a row of boards to the required width. Top nail the final row into place using brad nails placed ¼" in from the edge. Install mouldings and transitions as required. Ensure baseboard mouldings are affixed to the wall, not the floor.

**PLEASE NOTE:** It is a common practice among some installers to use a "full spread glue down" on the first and last few rows of a nail down installation in order to avoid top nailing. This practice is not recommended by PurParket for any nail down installation. Any use of full spread glue down on first and/or last rows within a nail down installation will automatically void the product warranty.

# PART 9

#### INSTALLATION

GLUE DOWN INSTALLATION SHOULD ONLY BE PERFORMED BY PROFESSIONAL WOOD FLOORING INSTALLERS. FOR INSTALLATIONS OVER RADIANT HEAT, PRODUCT & INSTALLATION PROCEDURE MUST ALSO CONFORM TO CONDITIONS LISTED IN 'PRODUCT USE' ABOVE.

#### SPECIAL INSTRUCTIONS FOR RADIANT HEAT

In order to activate PurParket's radiant heat warranty, our Radiant Heat Compliance form must be signed by the installer and submitted by the dealer.

Prior to flooring installation, ensure that the radiant heat system in full working order, has been fully tested and has been running for a minimum of two weeks prior to installation. This system should be turned off for 24 hours prior to installation.

Please refer to our Care & Maintenance and Warranty documents for further information on radiant heat allowances.

Open 5 to 6 packages of flooring and rack and inspect boards. (See Colour Racking above.) Apply adhesive to the subfloor and set first row of boards along the guide strip with the tongue against the guide strip. PurParket recommends the use of **Wakol MS230** for all glue down installations. For trowel selection, adhesive application and all other aspects of adhesive usage, follow the adhesive manufacturer's instructions. Leave 1/2" expansion space between the end of the first board and the wall. At the end of the row, cut a board to fit, ensuring board length is not less than minimum specified. Allow 1/2" expansion space to end wall. If desired, use offcut to begin next row.

Set subsequent rows working away from starter wall. When installing new boards, avoid pushing them into place across the subfloor as this may unevenly redistribute the adhesive. Instead, hold the new board above the subfloor at an angle, engage the tongue and groove joint, then press the board directly down onto the subfloor. Ensure no glue is forced into tongue & groove joints during installation as this may affect the fit of the joint. Avoid getting adhesive on the flooring surface, and clean up any seepage or spills immediately according to manufacturer's instructions.

To prevent boards shifting after they have been set into place, strap them with blue, low adhesion masking tape. Do not use regular masking tape as it may leave a residue of adhesive on the surface. Be sure to remove the tape at the end of each workday; do not leave it on the floor overnight. Under no circumstance should the tape be left on the floor longer than 12 hours. This may damage the finish. Remove the tape slowly and carefully, pulling it away from the floor at a 45 degree angle.

Continue with subsequent rows. To avoid a repetitive or predictable board pattern, cut some boards to random lengths to begin rows. Open new packages 5 to 6 at a time and rack and inspect boards as described above. Use offcuts if lengths are suitable and stagger butt joints as required. Ensure 1/2" expansion space is maintained at all perimeter walls and other vertical obstacles.

Complete the installation to the far wall. For final row, rip boards to required width (allowing 1/2" expansion space at far wall). Remove the guide strip from the starter row and complete the last ten rows back to the starter wall. Install mouldings and transitions as required. Ensure baseboard mouldings are affixed to the wall, not the floor.

Wait 24 hours before moving furniture or appliances onto floor. Also wait 24 hours before applying a floor protection membrane.

If the flooring was installed over a radiant heating system, wait 24 hours after installation or until the adhesive has fully cured before turning the system back on. Bring the temperature of the system up gradually, in 2.8°C (5°F) increments. Never allow the surface temperature of the floor to exceed 28°C or 82°F, avoid dramatic temperature changes; always adjust the system gradually in 2.8°C (5°F) degree increments. It is recommended that a dedicated quick recovery thermostat be installed to allow the temperature of the radiant heating system to be accurately controlled.

#### PART 11

# HERRINGBONE/CHEVRON INSTALLATION

Please adhere to the most current NWFA guidelines for herringbone and chevron installations.

#### **PART 12**

# FLOATING FLOOR INSTALLATION

FOR INSTALLATIONS OVER RADIANT HEAT, PRODUCT & INSTALLATION PROCEDURE MUST ALSO CONFORM TO CONDITIONS LISTED IN 'PRODUCT USE' ABOVE.

Please ensure the flooring is not fixed to any surface and a 1/2" expansion gap is maintained to allow the floor to expand and contract freely.

Refer to table below listing maximum width & length for floating flooring. When the dimensions exceed the below values, please use a t-mold.

EXPANSION GAP	MAX. WIDTH	MAX. LENGTH
1/2"	26' (8 metres)	52' (16 metres)

**NOTE**: An acceptable expansion space must be given for the installation of all mouldings. We recommend **Wakol MS 245 Montinator** to attach the moulding to the subfloor.

Never attach the moulding to the floating floor and ensure the moulding is not prohibiting the floor to move. Finish the perimeter of the room(s) with a quarter round or shoe moulding providing it is nailed only to the wall and not the floor.

Ensure subfloor is suitable and properly prepared. Verify moisture content of both subfloor and flooring is within allowable limits before commencing installation. If the flooring is being installed on a concrete subfloor, or over a crawlspace, or below ground level, a vapour barrier must be installed. Using 6 ml polyethylene sheeting, lay a single layer of sheeting over the entire subfloor. Allow an 8" overlap between seams, and seal the seams with duct tape along their entire length. Leave an excess of 4" of sheeting extending up the wall at all outer edges and hold in place with blue or painter's masking tape. (This excess will be trimmed away later.) Next, install appropriate underlay over the entire subfloor surface. The seams should butt, not overlap.

Open 5 to 6 packages of flooring and rack and inspect boards. (See Colour Racking above.) Verify straightness of starting wall as described above. Set first row of boards in place with the long groove side facing the starting wall, using chalk line as a guide. Set expansion spacers. Set joints closed using a hammer and tapping block. Never use a hammer directly on the tongue and groove joints as damage to the joint may result. Clean up excess glue immediately according to glue manufacturer's instructions. Begin second row. Run a 1/8" bead of glue along the upper edge of the groove on the long side and the right hand butt edge. Align left hand edge with first row and set in place, engaging long side joint. Tap joint closed and clean excess glue.

Repeat for subsequent boards in second row. Use offcuts if lengths are suitable and stagger butt joints as required. When second row is completed, strap the boards with blue masking tape and leave for one hour for glue to set. Do not use regular masking tape as it may leave a residue of adhesive on the surface. Be sure to remove the tape at the end of each workday; do not leave it on the floor overnight. Under no circumstance should the tape be left on the floor longer than 12 hours. This may damage the finish. Remove the tape slowly and carefully, pulling it away from the floor at a 45 degree angle. After one hour, resume installation using same technique for gluing and setting joints. To avoid a repetitive or predictable board pattern, cut some boards to random lengths to begin rows. Open new packages 5 to 6 at a time and rack and inspect boards as described above. Use offcuts if lengths are suitable and stagger butt joints as required. Maintain 1/2" expansion space at all perimeter walls and other vertical obstacles.

For the final row, measure the gap to the wall, allowing expansion space, and rip a row of boards to the required width. Ensure all excess glue has been cleaned from the floor surface. Strap entire floor with blue masking tape and leave for no longer than 12 hours. After 12 hours, carefully remove blue tape. Do not leave blue low adhesion masking tape on the floor longer than 12 hours. Trim the vapour barrier flush with floor surface. Install mouldings and transitions as required. Ensure baseboard mouldings are affixed to the wall, not the floor. If the flooring was installed over a radiant heating system, wait 24 hours after installation or until the adhesive has fully cured before turning the system back on. Bring the temperature of the system up gradually, in 2.8 °C of 5 °F increments. Never allow the surface temperature of the floor to exceed 82 °F avoid dramatic temperature changes; It is recommended that a dedicated thermostat be installed to allow the temperature of the radiant heating system to be accurately controlled.

#### **PART 13**

# AFTER INSTALLATION

Please see Care and Maintenance Guidelines for in-depth details.