INGENUITY™ FREE SPAN LUXURY VINYL PLANK INSTALLATION INSTRUCTIONS

INTRODUCTION

These instructions are written as a guide to be used when installing Tarkett Flooring. These instructions, combined with our adhesives and flooring products, create a system. Utilizing this system will ease the installation process and provide the customer with a completed product that will perform to its intended purpose. Always visit www.tarkettna.com for the most current installation and maintenance instructions. Technical videos and tip sheets are also available. Contact Tarkett Technical Services at (800)-899-8916 with any questions.

GENERAL INFORMATION

1. All Tarkett products must be stored in an indoor, climate-controlled space and be protected from the elements. Temperature must be maintained between 65˚F (18.3˚C) and 85˚F (29.4˚C) with a relative humidity between 40% and 60 %.
2. Cartons must be stored horizontally on a sturdy base at all times.
3. Protect corners from damage.
4. Carefully check flooring material for any defects. Contact your supplier immediately if any defect is found.
5. Tarkett Flooring is intended for indoor use only
6. Ingenuity must be acclimated in an indoor, climate-controlled space and be protected from the elements. Temperature must be maintained between 65º F and 85º F (18.3° C-29.4° C) with a relative humidity 40% and 60% for 48 hours prior to the installation
7. Room temperature shall be between 65ºF and 85ºF (18.3° C- 29.4° C) for 24 hours before, during and after installation.
8. Exposure to direct sunlight can result in flooring fading and creates excessive heat directly on the finished flooring and surrounding structure which may result in movement. During peak sunlight exposure, the use of drapes or other window treatments are recommended.
9. Remove all transitions, quarter round, baseboard molding or cove base.
10. Cartons must be stored horizontally on a sturdy base at all times.
11. Protect corners from damage.
12. Do not use foam padding under Ingenuity.

WOOD SUBSTRATES

Ingenuity may be installed over single floor wood construction in residential applications only, and a minimum 1/2" expansion gap is required in these installations.

Subfloor must meet the following requirements:

1. Wood joist or truss systems spacing must be a maximum of 16" on center.
2. Subfloor panels must be dry, sturdy, smooth and dimensionally stable.
3. Subfloor panels must be 3/4" minimum thickness tongue and groove plywood or oriented strand board (OSB).
4. Subfloor panels must be good one side, fully sanded face with a solid core (no voids).
5. Subfloor panels must be exterior grade or classified as Exposure I.
6. All suspended wood subfloors must have at least 18" of well-ventilated air space clearance above the ground. The ground under the crawl space shall be covered with 10 mil or thicker polyethylene sheeting to reduce moisture vapor transmission.
7. Offset subfloor panel joints by at least 16" so that four corners do not meet.
8. Subfloor panels must be securely fastened to the joists and free from spring or deflection. Deflection shall not exceed 3/64" (1.1 mm) per per APA Product Standard 2-10 *Performance Standard for Wood-Based Structural-Use Panels*. If glue-nail procedures are required, use a solvent-free construction adhesive.
9. Subfloor must be level within 1/8" in 8 ft. (3.1 mm in 2.4 m). Any unevenness must be sanded down or filled with a cementitious patching compound. Any unevenness may prevent Ingenuity from locking properly.

Wood subfloors not meeting the above requirements must be covered with 1/4" minimum thickness underlayment grade plywood. ProSheet Plus 3 may be used as a substitute, Follow all APA and manufacturer's guidelines for installing underlayment grade plywood.

Tarkett recommended underlayments include:

- APA Underlayment Grade Plywood A-C, B-C or C-C Plugged
- ACCU-PLY
- SurePly
- TECPLY
- ULAY
- C.S.A. (CanPly) and Proboard.

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CONCRETE SUBSTRATES

1. Ingenuity may be installed over properly constructed and prepared on-grade, above-grade or below-grade concrete subfloors.
2. Concrete subfloors must be constructed as recommended by the American Concrete Institute's ACI 302.2 *Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials*.
3. Prepare concrete subfloors according to ASTM F710 *Standard Practice for Preparation of Concrete Floors to Receive Resilient Flooring*. The surface of the concrete must be dry, clean smooth and structurally sound. The slab must be swept, damp mopped and/or vacuumed to remove any dust. Any surface materials present such as loose paint, wax, grease, oil, adhesive residues, crayon, pen marking, etc., that may prevent a proper adhesion or migrate to the surface of the flooring causing discoloration, must be removed. Fill and level any cracks, construction joints, control joints, depressions, grooves or other irregularities with a high-quality, non-shrinking, latex-fortified, cementitious patching compound.
4. Do not install Tarkett Flooring over expansion joints, or other moving joints in the substrate. These joints must be respected and should not be filled with products that are not intended for that purpose. Contact an expansion joint cover manufacturer to meet specific flooring conditions.
5. Moisture testing of concrete subfloors must be performed in accordance with ASTM F1869 *Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride* and ASTM F2170 *Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes*. Do not install Ingenuity if the values are greater than 5 lbs. /1000 ft²/24hrs per ASTM F1869 or 85 %RH per ASTM 2170. If the tests results exceed the limitations, the installation must not proceed until the problem has been corrected. Tarkett does not recommend or warrant any particular product or procedure for the remediation of high moisture in concrete substrates. There are several companies that manufacture products suitable for moisture remediation. We suggest you refer to the current ASTM F710 *Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring* and ASTM F 3010 *Standard Practice for Two Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Flooring Systems*

ADDITIONAL SUBFLOOR GUIDELINES

Many installations over existing floors produce satisfactory results. However their success is dependent upon the condition of the existing floor covering. Installing over existing flooring increases the possibility of indentations and telegraphing of the old floor. **NOTE**: The final decision to cover an existing floor with new Ingenuity rests with the flooring contractor, installer, and/or end user. Tarkett will not accept responsibility for floor failures where the condition, type or improper preparation of the existing floor is the cause for the failure. When installing Tarkett Luxury Vinyl Planks over an existing flooring follow the recommended guidelines below.

1. Minimum temperature of the substrate must be 60˚F (15.6 ˚C). Substrate temperature should be a minimum of 5˚F higher than the dew point temperature.
2. Ceramic, Porcelain and Natural Stone tiles must be smooth, even and well-bonded with a grout line depth less than 1/16" (.625). For all grout lines, fill with Portland Cement-based patching compound following manufacturer's guidelines.
3. Resilient Vinyl floors must be a single layer of smooth, even, non-cushioned flooring that is well-bonded to the substrate.
4. Strip Wood Hard Wood Floors must be smooth and even with a maximum gap width between boards of 1/16" (.625)
5. Heated flooring systems must be installed 2'' below concrete and the operating temperature must not exceed 85ºF (29.4ºC). During installation, lower the radiant heated floor temperature to a minimum 65ºF (18.3ºC). This temperature should be maintained for at least 24 hours before and during the installation, and for 48 hours after completion of the installation. Gradually increase the temperature in increments of 5°F (2.8°C) every 24 hours but do not exceed 85°F (29.4°C).
6. Residual adhesives should be mechanically removed to trace amounts and encapsulated with an approved Portland Cement-based patching compound. Do not use chemical adhesive removers or solvents. Always follow Resilient Floor Covering Institute's (RFCI's) *Recommended Work Practices for Removal of Resilient Floorcoverings*. **Caution:** Some resilient flooring and adhesives contain "asbestos fibers" and special handling of this material is required.
7. Refer to ASTM F 2419 *Standard Practice for Installation of Thick Poured Gypsum Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring* for guidelines when pouring gypsum underlayments or preparing for use as an underlayment under Tarkett Ingenuity. Follow the gypsum underlayment manufacturer's recommendations for proper application and preparation.

WARNING: Do not sand, dry sweep, dry scrape, drill, saw, bead blast or mechanically chip or pulverize existing resilient flooring, backing, lining felt or asphaltic "cutback" adhesive. These products may contain asbestos fibers or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the product is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content.

SUBSTRATE PREPARATION

1. All substrates must be dry, clean, structurally sound, smooth and free from all existing adhesive residues.
2. The substrate must be flat within 1/8" in 8' (3.17 mm in 2.4 m).
3. Fill and level concrete cracks, construction joints, control joints, depressions, grooves and other irregularities. Use a latex fortified, cementitious patching compound. Follow the manufactures recommendation for preparing.
4. Sweep and vacuum or damp mop substrate to remove all dust and debris.

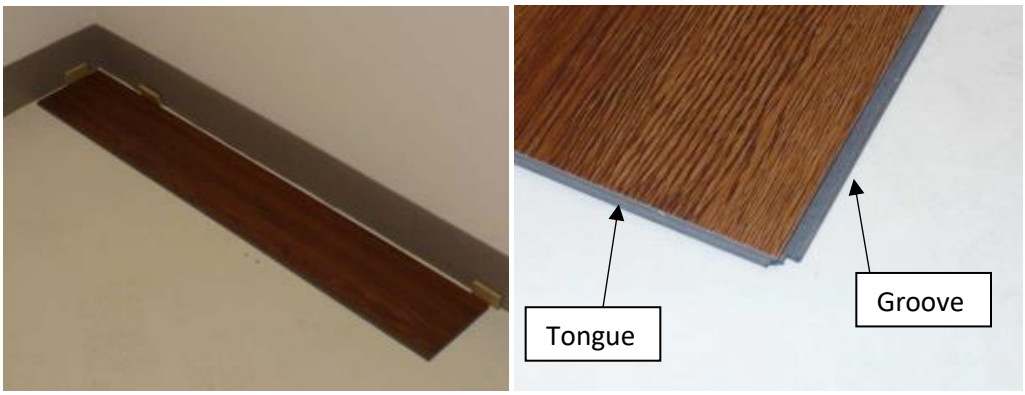
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GETTING STARTED

1. Install product out of multiple cartons from matching batch numbers.
2. Inspect all planks for visible defects and damage before and during installation. During installation, inspect the groove area and remove any debris that may prevent proper assembly of planks. Do not install damaged planks. Tarkett will not accept responsibility for claims on flooring installed with obvious defects.
3. Ingenuity must be acclimated at room temperature for 48 hours prior to the installation
4. Room temperature shall be no less than 65° F (18° C) for 24 hours before, during and after installation.
5. Remove quarter round, baseboard molding or cove base.
6. Undercut doorway moldings the thickness of the flooring.
7. Prepare your layout, anticipating the need for a transition anywhere that the installation exceeds 40' in either width or length. These transitions can be installed in doorways or archways to create a more aesthetic installation. **NOTE: When installing Ingenuity in Light Commercial applications a transition molding must be placed at egress doorways and when installations span greater than 40' in any direction**
8. Prepare your layout to guarantee that no plank is less than 12" in length or 2" in width. This may require the cutting of starting planks to insure that ending planks meet these size requirements.
9. Cartons must be stored horizontally at all times.
10. Protect carton corners from damage.
11. Ingenuity floors are floating floors and should not be adhered or nailed to the substrate.
12. Tarkett floors are intended for indoor use only.
13. Determine in which direction the planks will be installed. To make the room appear larger or if installing in very small rooms or hallways, it is preferable to lay the planks parallel to the longest room dimension. Install a universal transition if the dimension is over 35 feet.
14. Do not install permanent, fixed cabinets on planks.
15. Carefully measure the room to determine squareness and also to determine the width of the ending row of planks. If the width of the ending row of planks is less than 2" (50 mm), excluding the tongue, the width of first row of planks will have to be cut accordingly. If the length of any cut piece at the end of any row less than 12", the first plank in the row will need to be cut accordingly.
16. A minimum 1/4" (6.3 mm) expansion space is required around all walls and vertical objects. Allow a 1/2" (12.7 mm) minimum expansion space for installations over either single wood construction or wood substrates that may be effected by moisture or external temperature and humidity fluctuations (i.e. crawlspaces, mobile homes).
17. Do not use a hammer and taping block to install planks.

INSTALLATION

1. Begin laying planks from the left side of the starting wall and work to the right side. The tongue side of the plank shall face the starting wall. The Tongue portion is inserted into the Groove portion of the plank. **NOTE: If you have had to adjust the width of your starting row to accommodate that the width of your ending row will be a minimum of 2", you may not be starting with a full plank.**



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2. Place 1/4" (6.3 mm) spacers between the short and long side of the planks and the wall. Use 1/2" (12.7 mm) spacers for installations over both single wood construction subfloors and wood substrates that may be effected by moisture or external temperature and humidity fluctuations (i.e. crawlspaces, mobile homes)



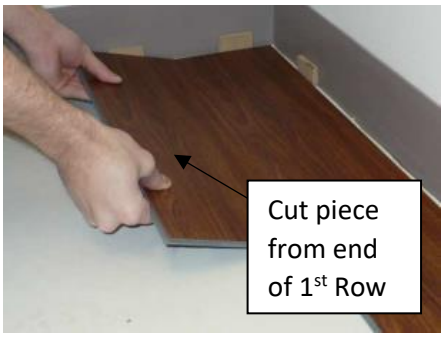
3. The end joints of the planks in the first row are assembled by inserting the tongue side into the groove side of the previous plank at a natural angle. Gradually lower the plank down flat until the end joint closes with no gap, insuring that the planks are perfectly aligned at the top and bottom of the joint. Install remaining full planks in the first row.



4. The last plank in the first row will need to be cut. Measure the distance between the wall and the surface of the last full plank. Subtract either 1/4" (6.3 mm) or 1/2" (12.7 mm) from this measurement depending on the size of the spacer used. The first and last plank in each row must be at least 12" (30.4 cm) in length, so if this measurement of the last plank is less than 12" (20.3cm), the length of first plank in the row must also be cut. Planks are cut using a sharp utility knife and straight edge/carpenters square. Score the surface of the plank with a utility knife, and then snap the plank at the score line.

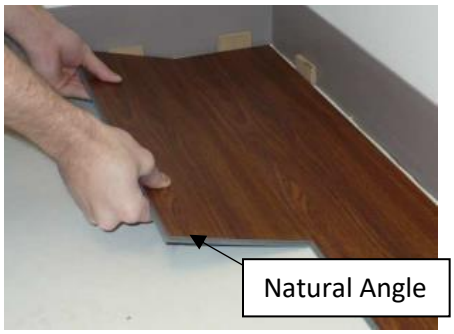


5. The remaining scrap piece cut from the last plank in the first row may serve as the first plank in the second row provided it is at least 12" (30.4 cm) long. Always stagger end joints from row to row a minimum of 12" (30.4 cm).



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6. Install the long side of the first plank of the second row. Remember to place a 1/4" (6.3 mm) or 1/2" (12.7 mm) spacer between the wall and the short side of the plank. Insert the tongue side into the groove side of the previous row at a natural angle and rotate downward until plank is flat with the substrate. You should only have to lift the plank high enough to get your fingers underneath to achieve this natural angle.



7. To install the second plank in the second row. Insert the tongue side end joint into the groove side end joint of the previous plank at a natural angle. Position the long side of the plank with the tongue side slightly overlapping the groove area of the planks in the previous row. Lift the plank upward and, working from the left side of the plank to the right, gently push forward until the entire plank engages into the previous row. **NOTE: Use caution when installing the long side of the planks. Do not push on the planks too hard as this may distort or deform the groove.** Rotate plank downward until plank is flat with the substrate. Continue installing remaining planks in the row. It is important to make sure that the first two rows are straight and square as they can affect the entire installation**.**







8. Continue working from left to right maintaining the random appearance. Planks may be installed row by row or by working multiple rows using the stair step method. Be sure to maintain proper spacing at walls and vertical obstructions

9. In some cases, the flexibility of Ingenuity will allow for easy positioning of the planks under door moldings and casings. In the event this cannot be done, it is necessary to remove the lip on the groove edge of the planks you are fitting to using a sharp utility knife and straight edge. This will allow you to install the plank lying flat. After the lip has been trimmed off on the planks you are fitting to, lay the plank flat on the floor. Apply a thin bead of any PVA glue on top of the tongue and push the plank into position. **Immediately wipe off any excess glue with a damp cloth.**

10. When installing in front of a tub/shower, place Tarkett S860 Double Sided Seam Tape™ along the front of the tub/shower. A bead of flexible, mildew-resistant, 100% silicone caulk should be used to seal the top of the Ingenuity. **NOTE: This must be the only place where the Ingenuity is fixed to the subfloor with no expansion space.**

FINISHING THE INSTALLATION

1. After all planks have been installed, remove spacers from perimeter of room.
2. Install transition moldings. Do not fasten any moldings through the Ingenuity. You can drill pilot holes or cut V-shaped notches out of the flooring to insure that transition fasteners do not go through the material.
3. Pre-drill and install quarter round or baseboard molding. Molding must be sufficient size to cover the 1/4" (6.3 mm) or 1/2' (12.7 mm) expansion space. Do not fasten moldings through the Ingenuity, fasten into the wall.
4. Use plywood to cover the top of the finished flooring installation when moving heavy furniture or appliances into position.
5. Use proper floor protectors under the legs of furniture.
6. Post installation site conditions should be controlled by HVAC and maintained between 55ºF and 95ºF (12°C and 35°C). Ambient relative humidity should be maintained between 40% and 70%

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PLANK REPLACEMENT

Refer to complete Free Span Plank Replacement instructions for further information.

1. Using a straight edge and sharp utility knife, cut the center of the damaged plank approximately one inch from the edge of the adjoining planks.
2. Remove the center of the damaged plank.
3. Make a cut from each corner back to the inside edge.
4. Carefully remove the edges of the cut plank. Do not damage adjoining planks.
5. Prepare the replacement plank by removing the tongue and groove on each short side and by removing the groove on the long side.
6. Using Tarkett S 875 Floating Seam Tape™, place a piece so it is centered under each adjoining plank.
7. Remove the release liner on the tape on all sides.
8. Place a bead of PVA adhesive (such as Elmer's Glue All) on the top of the tongue of the adjacent plank, long and short side. Wipe excess with a damp rag.
9. Position the replacement plank by inserting the tongue of the long side into the groove of the adjoining plank.
10. Rotate the plank downward into position.
11. Roll seam edges with a hand roller to ensure proper contact with floating seam tape.
12. Wipe excess PVA adhesive off with a rag dampened with water.

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