

**APPLICATION TECHNIQUES**



APPLICATION:	Floating Installation			Fastener with Partial Glue-down Installation			Full Glue-down Installation					
SUBSTRATE:	Plywood, OSB or Concrete			Plywood or OSB						Concrete		
LOCATION:	Above Grade	Below Grade	On Grade	Above Grade	Below Grade	On Grade	Above Grade	Below Grade	On Grade	Above Grade	Below Grade	On Grade
<b>ENCORE</b> 7"	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5/8" thick DACS II Construction 8"	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>PRESTIGE</b> 7"				✓	✓	✓	✓	✓	✓	✓	✓	✓
3/4" thick DACS II Construction 8"				✓	✓	✓	✓	✓	✓	✓	✓	✓

**1. Site Preparation**

In order to achieve a successful installation, it is crucial to consider the conditions at the jobsite and ensure that all the important requirements (listed below) are met. For a detailed explanation of the necessary jobsite conditions, please consult the comprehensive Jobsite Conditions and Preparation information provided by NWFA, accessible through the link in the left column.

**It is recommended that wood floor installation be the final stage in any construction or renovation project.**

**2. Evaluation of Jobsite Conditions**

Prior to installation, conduct a thorough inspection of the jobsite to assess the suitability of the jobsite conditions.

**Check the following:**

- Ensure that the flooring is not exposed to prolonged periods of excessively high or low humidity levels.
- Verify that crawl spaces are well cross-ventilated and that the ground is completely covered with 6 mil black poly, extending a minimum of 18 inches to the underside of the joists.
- Confirm that there are a minimum of two vents located throughout the foundation, which remain open year-round. The total vent openings should equal 1.5% of the square foot area of the crawl space. For example, a 1000 sq. ft. crawl space should have a total of 15 sq. ft. of vent space.
- Ensure that the building is fully enclosed with installed windows and doors.
- Verify that all tasks involving water or moisture, such as plumbing, plaster/drywall, ceiling and wall finishes, and painting, have been completed with sufficient time for thorough drying before installing the flooring.

- Confirm that exterior grading is finished and slopes away from the building. Additionally, ensure that gutters and downspouts are in place and effectively directing water away from the foundation.
- Prior to installation, ensure that the heating system has been operational for at least one week, consistently maintaining a minimum temperature of 22°C (72°F).
- Maintain a relative humidity (RH) level between 30% and 50%.
- Evaluate and document the jobsite conditions. Take multiple measurements from various locations to record the subfloor moisture content (MC), wood flooring MC, relative humidity (RH), and room temperature for future reference.

Please check the boxes next to each requirement once they have been verified.

# Installation Instructions

Sec. 1: Essentials and Prep.	Sec. 2: Installation	Sec. 3: Care, Guides, Forms
	GVT's Pledge to Homeowners	Techniques for Application Post-Installation Considerations and Project Managers for Radiant Floor and Electric Mat Heating Systems
Responsibilities of Pre-Installation Considerations Managers, and Installers		Care and Maintenance for Your Homeowners, Project GVT Floor
Guidelines	Acknowledgment of NWFA Preparation of the Subfloor	Guide to Recommended Wood Flooring Installation Adhesives
	Key Information About GVT Instructions for Installing Flooring Herringbone and Chevron Patterns	Acknowledgement of Homeowner Responsibilities
Crucial Details for Homeowners, Instructions for Installing Project Managers, and Installers	Fastener with Partial Glue-Down	
	Instructions for Installing Using the Full Glue-Down Method	
	Instructions for Installing Using the Floating Method	
	Finalizing the Installation (All Installation Methods)	

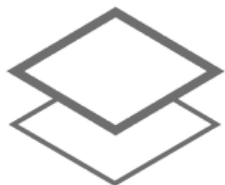
Packaging: Reuse / Recycle

To prevent packaging waste from ending up in landfills, it is important to sort packaging materials and opt for reuse or recycling whenever possible. If you come across materials labeled as **DEPOT DROP-OFF**,



**LIMITED RECYCLING, or TRANSFER STATION,** please reach out to your local municipal depots for appropriate recycling procedures.

Reuse Recycle		
<p><b>GVT Cardboard Box</b> To safeguard your floor after <b>Cardboard Box</b> installation, it is recommended When utilizing cardboard as a to flatten cardboard boxes and protective measure, it is use them as a protective layer. important to ensure that any However, it is essential to be pieces of cardboard covered cautious and avoid taping the with paint or other materials cardboard directly to the floor. are cut away.</p> <p><b>Edge Protectors</b> This protective measure can <b>Cardboard Box</b> (Recycled kraft paper/hard effectively be employed to paper board) safeguard vulnerable edges and corners at a jobsite during the entire construction process.</p> <p><b>GVT Protective Paper Sheets</b> This versatile product can be <b>Paper</b> (Used to protect the floor's utilized in various settings such finish while inside the box – as the jobsite, workshop, or made from recycled paper) kitchen for effective spill cleanup and more.</p> <p><b>Stretch Wrap and Inside Plastic</b> Unleash your creativity! These <b>LLDPE &amp; LDPE – Plastic Wrap</b></p>		
<p><b>Wrap</b> 30" x 96" sheets are perfect for <b>DEPOT DROP-OFF</b></p> <p>Stretch Wrap, which stands for safeguarding surfaces on a job Please bring this to a store or linear low-density polyethylene site during activities like depot that accepts plastic bags (LLDPE), and Inside Plastic painting and more. and wraps for widespread</p> <p>Wrap, which stands for low-recycling. density polyethylene (LDPE).</p> <p><b>Plastic Strapping</b> Through the utilization of poly <b>PP – Polypropylene DEPOT</b> (Used on boxes and pallets: PP – strapping tensioners and <b>DROP-OFF</b> Polypropylene) strapping seals, the pallet Please verify with local depots strapping can be effortlessly for their varying acceptance reused. policies.</p> <p>The pallet is designed for <b>Clean Wood Waste - TRANSFER</b></p>		
<p><b>W</b></p> <p>reusoadb Piliatly,e at nd at the very least, <b>STATION</b></p> <p>theC pralyftweodo edn ctiane lby efr doemta wchoeodd The pallet should be recycled sourced from 100% certified and repurposed in other areas together with other clean wood osuf stthaein jaobbl esi tfeo.r ewsatss.t e</p>		



## Grand Surfaces' COMMITMENT to Homeowners and Project Managers

At Grand Surfaces, our commitment is unwavering when it comes to providing homeowners and project managers with the finest wood flooring products. We take immense pride in every aspect of our business, ensuring that the quality of every Grand Surfaces floor surpasses expectations.

Wood floors, being a product of nature, naturally exhibit variation and the inherent character of wood. Our wood floors and accessories are meticulously manufactured in compliance with industry standards, allowing for a defect tolerance and grading tolerance of no more than 5%.

For your peace of mind, Grand Surfaces' wood floors are backed by a Limited Lifetime Structural Warranty. However, please note that improper installation, failure to follow provided instructions and recommendations, or the use of unsuitable tools or materials may void the warranty.

We strive to deliver excellence in every Grand Surfaces product, and our commitment remains steadfast in meeting and exceeding your flooring needs.

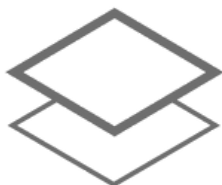
## RESPONSIBILITY of Homeowners, Project Managers and Installers

We kindly request that you carefully read all instructions and warranty information prior to preparing and installing your Grand Surfaces wood floor. Our utmost goal is to ensure complete customer satisfaction with every Grand Surfaces floor. It is crucial for homeowners, project managers, and installers to thoroughly inspect each board before installation, as acceptance of the floor is considered once it has been installed.

Before proceeding with installation, it is essential for installers and homeowners/project managers to ensure that all subfloor inspections and pre-installation requirements outlined in this guide are met or surpassed according to minimal specifications. Prior to installing a Grand Surfaces floor, installers must measure

and document all site conditions, including subfloor moisture content, jobsite relative humidity, temperature, acclimation schedule, and more. Installation should only commence once it is confirmed that all site conditions fall within acceptable ranges. For additional information, please refer to page 36 of the NWWFA Wood Flooring Installation Guidelines document available at [grandsurfaces.com](http://grandsurfaces.com). We strongly recommend that the homeowner/project manager be present during the installation of the first few boxes to provide their approval before proceeding with full installation.

It is the joint responsibility of the homeowner/project manager and the installer to conduct an on-site quality check and approve the wood grade, manufacturing quality, finish quality, and stain color of the floor BEFORE INSTALLATION, even if the homeowner/project manager is not present during the installation. The installer must exercise sound judgment throughout the installation process. It is the installer's duty to inspect each piece and report any potential quality issues or appearance discrepancies to their dealer or directly to Grand Surfaces before installation. In the event that a board contains a minor defect or imperfection, it can be removed by cutting off the flawed piece and either discarding it or using it in a concealed area such as a closet. Once installed, each board will be considered as accepted by the homeowner/project manager.



GRAND SURFACES

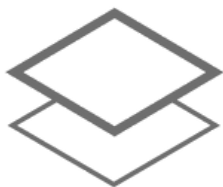
Grandsurfaces.com  
[info@grandvalleytile.com](mailto:info@grandvalleytile.com)  
519 743 8300

**REFERENCE to NWFA Wood Flooring Installation Guidelines**

The National Wood Flooring Association (NWFA) released a new edition of their Wood Flooring Installation Guidelines in January 2020. This updated publication represents the most extensive revision of the guidelines since their initial release in 1988. The new guidelines cover various essential topics, including the evaluation of job site conditions, subfloor preparation, proper installation techniques, moisture testing protocols, fastener schedules, radiant heat installations, and more.

Grand Surfaces recognizes the NWFA as the leading authority on wood flooring installation matters. As a result, Grand Surfaces has chosen to reference and adhere to the NWFA's guidelines whenever feasible. The purpose of the Grand Surfaces Installation Instructions is to highlight specific aspects of wood flooring installation that require special attention and to address the unique considerations associated with installing a Grand Surfaces floor.

As a member of the NWFA, Grand Surfaces has obtained permission from the association to reference its Wood Flooring Installation Guidelines. Grand Surfaces acknowledges and appreciates the substantial effort invested in the NWFA's updated guidelines. They extend their gratitude to the National Wood Flooring Association for its unwavering commitment to excellence and ongoing education in the field of wood flooring installation.



GRAND SURFACES



# Essential Information About Grand Surfaces Flooring

- All of Grand Surfaces' floors are suitable for residential and light commercial applications, including installations on floors, walls, and ceilings.
- Please note that the standard box length is 8 feet.
- All 8-foot boxes contain a mixture of plank lengths ranging from 1 to 8 feet. The planks do not come in true random lengths but are instead a selection of fixed standard lengths.
- Grand Surfaces' boxes, specifically, contain only one length: all boards are 10 feet long.
- It is recommended to strategically place Grand Surfaces' boards in areas where the 10-foot length will enhance the overall appearance of the floor.
- When lengths are mentioned in this document, they are nominal lengths. The actual lengths occur in 300mm increments. For example, a 2-foot board is actually 600mm long, and a 3-foot board is actually 900mm long, and so on.
- All 1-foot boards have a removable sticker applied to encourage their use as starter boards, under cabinets, or in small spaces—not in the center of the floor.
- To ensure a harmonious blend of lengths and color distribution, use a minimum of 4 cartons at a time and rack out the floor before fastening or gluing-down to randomly distribute length, grain, and color variances. Avoid clusters of light or dark colors and discernible patterns such as "H" joints or "steps."
- For a true random length appearance, it is highly recommended to "randomize" the length of the starter piece for each new run to avoid a fixed-length pattern of end joints in the floor.
- Grand Surfaces' flooring and accessories adhere to accepted industry standards (NWFA), allowing a defect tolerance and grading tolerance of up to 5%.
- Once installed, every board is considered accepted by the homeowner or project manager.
- After installation, it is crucial to use a protective covering to safeguard the floor's surface until the final cleaning before the new occupants take possession. Tape the sheets of flooring protection together and position them in place, but avoid taping directly onto the finished flooring. Any type of tape can damage the surface of a urethane-finished floor, so it must be prevented from coming into contact with the floor's surface.

# Essential Information for Homeowners, Project Managers, and Installers

## **Radiant Floor Heating Systems**

Every Grand Surfaces floor is compatible with radiant floor heating systems. To ensure warranty validation, the Homeowner/Project Manager Responsibility Form (found on page 21) must be completed and submitted to [info@grandsurfaces.com](mailto:info@grandsurfaces.com) prior to installation. It is essential to follow both the NWFA's Wood Flooring Installation Guidelines and Grand Surfaces' specific guidelines outlined in this document (see page 8 Sec. 3, page 17, and page 19 Sec. 3) when installing the floor. For comprehensive information regarding radiant floor heating systems, please visit [grandsurfaces.com/nwfa-radiant.pdf](http://grandsurfaces.com/nwfa-radiant.pdf).

## **Storage and Handling**

**IMPORTANT:** Always store boxed Grand Surfaces flooring in a controlled environment that closely resembles normal living conditions. Avoid storing the flooring in areas such as garages or basements, where the wood may be exposed to extreme temperature and humidity fluctuations. Please note that damage to the flooring caused by improper storage is not covered by Grand Surfaces' warranty.

## **Care Throughout Installation**

Grand Surfaces' wood flooring can be installed on, above, or below grade. Refer to the Application Techniques chart (page 6) to determine the appropriate applications for Grand Surfaces products. It is crucial to exercise caution and handle each piece of prefinished wide plank wood flooring with care during installation to prevent damage to the finish.

# Subfloor Preparation

## Installation Over Wood Subfloors

- Any wood subfloor must have a moisture content (MC) within a 2% difference of the Grand Surfaces floor. The MC of the wood subfloor should not exceed 12% prior to receiving the flooring. Higher moisture levels in the subfloor could lead to moisture-related issues after installation. If the MC reading is too high, delay the delivery and installation of the material. Identify the source of moisture and address it if necessary. Increase heat and ventilation until proper conditions are achieved.
- For the installation of a Grand Surfaces floor, a minimum of  $\frac{5}{8}$ " (16 mm) plywood or  $\frac{3}{4}$ " (19 mm) approved OSB chipboard subfloor is required when installed over joists spaced 16" (406 mm) center-to-center. Particleboard is not an approved subfloor material.
- The entire wood subfloor must be securely fastened to the joists to prevent any movement or squeaks before installing the flooring. Thoroughly inspect and replace any sections of the subfloor that display signs of water damage or structural weakness.
- The subfloor surface should be as level as possible and should not deviate more than  $\frac{3}{16}$ " (5 mm) within a 10' (3 m) radius. If necessary, address any irregularities and fill uneven spots with leveling compound. A Grand Surfaces floor should be installed perpendicular to the joists' direction. If installing parallel to the joists is necessary, an additional layer of  $\frac{1}{2}$ " plywood must be used.
- Prior to installation, remove all baseboards, base mouldings, shoe mouldings, doorway thresholds, and similar items.
- If needed, undercut all doorjamb.
- Just before installation, eliminate any debris or obstructions such as cleat nail heads, dried glue, or any other materials, and thoroughly vacuum the area.

## Installation Over Concrete Subfloors

- The concrete should be at least 45 days old before conducting any testing.
- Measure the moisture content of the concrete, ensuring it does not exceed 4%. For calcium chloride testing, the results should not exceed 3 lbs/1,000 square feet/24-hour period. For relative humidity testing using in-situ probes, the results should be below 75% RH. If any of the readings exceed these levels, it will be necessary to wait for further drying of the slab before installation.
- The concrete must have a maximum variance of  $\frac{3}{16}$ " (5 mm) over a 10' (3 m) span. If there are greater height variances, either grind down the high spots or fill the low spots using an appropriate floor leveling or patching compound.
- Prior to installation, remove any debris and thoroughly vacuum the concrete subfloor.
- Grand Surfaces strongly recommends using a proper, compatible adhesive as specified in the Grand Surfaces Recommended Adhesives Guide (found on page 20) for concrete subfloors where the manufacturer provides a moisture barrier. Each adhesive manufacturer has specific requirements for subfloor preparation, moisture testing, and installation. It is crucial for the installer to carefully follow the adhesive manufacturer's instructions to ensure compliance with their warranties. Note that the product warranty provided by Grand Surfaces does not cover the bond performance of any adhesive. Any issues related to bond adhesion to the subfloor should be addressed directly with the adhesive manufacturer and should not be considered a flooring manufacturing defect.



# Subfloor Preparation (Continued)

## Important Factors to Consider for Subfloor Preparation in Radiant Floor Heating Systems

- Before installing over concrete, it is essential to allow sufficient time for the slab to dry and cure, typically ranging from 45 to 60 days. Initiating a radiant floor heating system embedded in a concrete subfloor before it has adequately cured may negatively impact the structural integrity of the floor.
- In the case of concrete subfloor systems, it is necessary to operate the radiant heating system before installation. The system should be fully functional, turned on, and maintained at the normal operating temperature, irrespective of the season, for a minimum of 5 days prior to the delivery of any wood flooring. This continuous operation assists in expelling moisture from the concrete or compound mix.  
Once the slab or subfloor has thoroughly dried, the radiant heating system should be turned off for 1-2 days preceding the installation. To prevent premature drying and adhesive skinning, the temperature of the subfloor must not exceed 20°C (68°F) at the time of installation.

## After Fulfilling Site Conditions

- Arrange for the delivery of the flooring to the designated jobsite.
- Allocate sufficient time for the flooring to be distributed into the rooms where the installation will take place, ensuring a minimum period of 48 hours before the scheduled installation begins.
- Enable the wood to acclimate to the prevailing indoor conditions. At the very least, open the ends of each box to allow direct air exposure to the wood. For optimal results, fully open each box to facilitate maximum airflow around the flooring during the acclimatization period.

# INSTALLATION INSTRUCTIONS: Considerations for Herringbone and Chevron Flooring

## Specific Considerations and Instructions

- The installation guidelines for Grand Surfaces herringbone and chevron flooring differ from the NWFA Guidelines, as the recommended method for Grand Surfaces is the Full Glue-Down Installation Method (pages 12-13). Only herringbone and chevron flooring installed using the Full Glue-Down Installation Method will be covered by the Grand Surfaces warranty.
- Adequate site preparation and subfloor preparation are crucial for a successful installation of herringbone and chevron flooring. Please refer to previous sections for specific recommendations.
- Both herringbone and chevron flooring consist of two distinct plank profiles of the same length: Profile A and Profile B. The only difference between these profiles is the relative positioning of the tongues and grooves. When ordering herringbone or chevron flooring, the shipment will include an equal number of "A" boxes and "B" boxes.
- Similar to straight plank flooring, it is advisable to open and select from a minimum of 4 boxes (2 "A" boxes and 2 "B" boxes) at a time during installation to ensure a harmonious blend of shading and board pattern.
- It is important not to fasten or tape floor protection directly to the surface of the floor.
- For comprehensive, step-by-step guidance on installing herringbone and chevron flooring, please refer to NWFA's comprehensive guidelines on Herringbone and Chevron Installation, accessible through the provided link in the left column.
- Additionally, please consult the Full Glue-Down Installation Method (pages 12-13) for a summary of vital considerations specific to the installation of Grand Surfaces herringbone and chevron flooring.

# INSTALLATION INSTRUCTIONS: Fastener with Partial Glue-Down Installation Method (For products 7" and wider)

**Before initiating the installation process, it is important to ensure that the site conditions outlined in the previous section have been met:**

- Refer to the Application Techniques chart (page 6) to confirm the appropriate installation method for your specific situation.
- Verify that the subfloor is suitable and has been adequately prepared (refer to pages 7-8). It is crucial to check that both the subfloor and flooring have moisture content within the permissible limits before starting the installation.
- Consult the CRAFT Recommended Adhesives Guide (page 20) to select an adhesive product that is suitable for your installation requirements.  
Arrange for the delivery of the flooring into the rooms where the installation will take place at least 48 hours prior to commencing the installation. Open each box of flooring to allow the wood to acclimate to the existing indoor conditions. This acclimatization process is important for ensuring a successful installation.

## **Basic Materials**

To ensure proper installation of CRAFT's 5/8" floors, please follow these guidelines:

- Utilize 1-1/2" 18 gauge cleats for securing the flooring.
  - If opting for a partial glue-down installation, refer to the Fastener with Partial Glue Down Installation section in the CRAFT Recommended Adhesives Guide (page 20). Choose one of the recommended adhesives from the guide.
  - It is crucial to carefully adhere to the recommendations provided by the adhesive manufacturer to ensure successful installation.

## **Specific Considerations and Instructions**

When using a trigger-activated flooring nailer with Grand Surfaces products, it is important to follow these guidelines:

- To prevent any vertical movement or hollow noises, the installer must either stand on the boards or apply downward pressure to each board's surface (by using weights) while nailing.
- Apply the adhesive in a specific pattern: three parallel lines running the entire length of each board. The outer lines should be 1" - 1 1/2" (25mm - 38mm) from the board edges. Using the correct gluing pattern is crucial to avoid serious issues and maintain the warranty.

- Please note that the use of Sika Construction Adhesive or any PL Brand adhesives is NOT PERMITTED and will void the warranty.
- Maintain a fastener spacing of 6" intervals along the length of each board and 2"-3" from the end-joints. Each board should have a minimum of 2 fasteners, including the 1' boards.
- Due to the variety of plank lengths and natural color variation in wood flooring, open and select a minimum of 4 boxes at a time during installation to achieve a harmonious blend of shading and board pattern.
- Pre-select flooring boards that match well with any accessories to be installed and set them aside until needed. This ensures seamless integration between the accessories and adjacent boards.
- For additional important information regarding the successful installation of Grand Surfaces flooring, please refer to the "Things To Know About A Grand Surfaces Floor" section (page 4).
- For a detailed explanation of the Fastener with Partial Glue-Down Installation Method, please consult NWFA's comprehensive guidelines, accessible through the link in the left column.

### **Additional Important Considerations**

- Exercise caution when handling each piece of flooring to prevent damage to the finish.
- Always maintain cleanliness during the installation process to ensure a tidy job site.
- Perform any necessary cutting of boards outside the room where the floor is being installed to minimize dust and debris on the new floor.
  - Be mindful when joining boards together to avoid getting glue on the backs of the boards, as this can lead to adhesive seeping through the seams and causing issues if not promptly cleaned.
  - If adhesive does come into contact with the floor's surface or beveled areas, it must be promptly and thoroughly removed before it dries (cures).
  - Failure to promptly clean excess adhesive, following the instructions provided by the adhesive manufacturer, can result in irreversible damage to the floor's surface. Avoid excessive rubbing of the finish during adhesive removal to prevent shiny spots. If necessary, affected boards may need to be replaced for repair.
- Use a breathable protective covering such as cardboard, Ram Board, or an equivalent floor protector to cover the installed portion of the floor. Do not use non-porous materials like plastic or vinyl, as the adhesive requires proper ventilation to cure for a minimum of 24 hours.
- Avoid directly fastening or taping floor protection materials to the floor surface.
- Never place tools, toolboxes, or nails directly on a new hardwood floor.
  - Control access to the hardwood floor during and after installation to minimize traffic from other trades.

# INSTALLATION INSTRUCTIONS: Full Glue-Down Installation Method

**Before starting the installation process, please ensure that the site conditions mentioned in the previous section have been met:**

- **Consult the Application Techniques** chart (refer to page 6) to verify the appropriate installation method for your project.
  - **Ensure that the subfloor is suitable and adequately prepared** (see pages 7-8). It is crucial to confirm that both the subfloor and flooring have moisture content within the allowable limits before commencing the installation.
  - **Refer to the Grand Surfaces Recommended Adhesives Guide** (consult page 20) to choose an adhesive product that is suitable for your specific installation requirements.
  - **Arrange for the flooring to be delivered into the rooms where the installation will take place at least 48 hours before the installation is scheduled to begin. Additionally, open each flooring box** to allow the wood to acclimate to the existing indoor conditions. This step is essential for optimal performance and durability of the flooring.

## **Basic Materials**

- Select one of the recommended adhesives listed in the Full Glue-Down Installation section of the **Grand Surfaces Recommended Adhesives Guide** (refer to page 20). Ensure that you follow the adhesive manufacturer's instructions meticulously during the installation process.
- Furthermore, **it is crucial to use the appropriate trowel as specified by the adhesive manufacturer. Neglecting to use the correct trowel may lead to significant problems and will invalidate the warranty.**

## **Specific Considerations and Instructions**

- To maintain tight joints while the adhesive sets up and cures, utilize ratcheting floor straps to secure the entire floor.
  - Exercise caution when joining boards together to prevent any glue from the backs of the boards seeping into the grooves. This can lead to adhesive being forced through the seams and onto the surface, potentially causing issues if not promptly cleaned up.
  - Due to variations in plank lengths and natural color variations in wood flooring, it is advisable to open and select from at least 4 boxes at a time during installation. This ensures a harmonious blend of shading and board patterns.
  - Before installation, pre-select flooring boards that harmonize well with any accessories to be installed. Set them aside until needed to ensure a seamless integration of accessories with the adjacent boards. For additional vital information pertinent to the successful installation of a

Grand Surfaces floor, please consult the Things To Know About A Grand Surfaces Floor section (refer to page 4).

- For a comprehensive explanation of the Full Glue-Down Installation Method, kindly refer to NWFA's comprehensive guidelines available through the link in the left column. These guidelines offer detailed insights into this specific installation method.

### **Additional Important Considerations**

- Handle each flooring piece with care to prevent any damage to the finish.
- Maintain cleanliness throughout the installation process at all job sites.
  - Cut the boards outside the room where the floor is being installed to minimize the accumulation of excessive dust and debris on the new floor.
- If adhesive accidentally gets on the floor's surface or in the bevel areas, promptly and completely remove it before it dries or cures.
  - Failing to promptly clean up excess adhesive, following the adhesive manufacturer's instructions, may result in irreversible damage to the floor's surface. When removing adhesive, avoid excessive rubbing that could cause a burnished finish or shiny spots. In such cases, affected boards may need to be replaced for repair.
  - Cover the installed section of the floor with a breathable protective wrapping such as cardboard, Ram Board, or a similar floor protector. Do not use non-porous materials like plastic or vinyl, as the adhesive requires proper ventilation to cure for a minimum of 24 hours.
- Avoid fastening or taping floor protection directly onto the floor surface.
- Never place tools, toolboxes, or nails directly on a new hardwood floor.
- During and after installation, limit access to the hardwood floor by other trades to prevent potential damage.

# INSTALLATION INSTRUCTIONS: Floating Installation Method

Grand Surfaces products do not come with a warranty for squeaking, popping, or crackling sounds when installed using floating methods. It is normal to experience some level of squeaking, popping, or crackling with floating installations. These noises may be more noticeable in arid regions or during dry conditions.

**Before beginning installation, ensure the site conditions described in the preceding section have been met:**

- Consult the Application Techniques chart (page 6) to confirm the correct installation method.
- Ensure the subfloor is suitable and properly prepared (page 7-8). Verify that the moisture content of both the subfloor and flooring is within allowable limits before commencing installation.
  - Refer to the Grand Surfaces Recommended Adhesives Guide (page 20) to select an adhesive product suitable for the installation.
  - Have the flooring delivered into the rooms where the installation will occur a minimum of 48 hours before installation is to begin and open each flooring box. This will allow the wood to acclimate to the existing indoor conditions.

## Basic Materials

- Use one of the recommended adhesives as outlined in the Floating Installation section of the Grand Surfaces Recommended Adhesives Guide (page 20). Carefully follow the adhesive manufacturer's recommendations.

## Specific Considerations and Instructions

- Apply adhesive only in a 1/8" bead along the upper edge of the groove portion of each joint. Use a hammer and tapping block to install and close the joints. Always use the same adhesive to glue the end joints together.
- Avoid using a hammer directly on the tongue and groove to prevent damage to the joint. Always use a suitable tapping block.
- To maintain tight joints while the adhesive sets up (cures), strap the entire floor with ratcheting floor straps.
- When installing boards together, take care to prevent any glue from the groove from being forced through the seams and onto the surface. Promptly clean up any excess glue to avoid potential problems.
- Due to the variation in plank lengths and natural color differences in wood flooring, open and select from a minimum of 4 boxes at a time during installation to achieve a pleasing blend of shading and board pattern.
- Set aside flooring boards that match well with any accessories to be installed, ensuring a seamless blend with adjacent boards. For additional important information regarding the successful installation of a Grand Surfaces floor, please refer to the Things To Know About A Grand Surfaces Floor section (page 4).

### **Additional Important Consideration**

- Handle each piece of flooring with care to prevent any damage to the finish.
- Maintain cleanliness at all times during the installation process to keep the jobsite tidy.
  - Cut boards outside of the room where the floor is being installed to minimize the accumulation of dust and debris on the new floor.
  - If adhesive comes into contact with the floor's surface or bevel areas, immediately clean and remove it before it dries or cures.
- Failing to promptly clean up excess adhesive according to the adhesive manufacturer's instructions may result in irreparable damage to the floor's surface. When removing adhesive, avoid excessive rubbing that could burnish the finish and create shiny spots, which may require replacing the affected boards for repair.
- Use a breathable protective wrapping like cardboard, Ram Board, or an equivalent floor protector to cover the installed portion of the floor. Do not cover the floor with non-porous materials such as plastic or vinyl, as proper ventilation is necessary for the adhesive to cure for a minimum of 24 hours.
- Avoid fastening or taping floor protection directly onto the floor surface.
- Never place tools, toolboxes, or nails directly on a new hardwood floor.
  - During and after installation, limit traffic from other trades on the hardwood floor to prevent potential damage.



# COMPLETING THE INSTALLATION

## (Applicable to all 3 Installation Methods)

### Completing the Installation

- Minimize foot traffic on the newly installed floor for the first 24 hours. Avoid placing furniture or moving heavy objects onto the floor during this time.
- Install necessary moldings and transition pieces according to the requirements. Ensure that baseboard moldings are attached to the wall rather than the floor.
- Carefully inspect the finished floor for any nicks or minor gaps and use matching color wood putty to fill them. For small corner and side gaps, it is acceptable to touch up minor blemishes using stain markers or putty, following the guidelines set by NWFA and Grand Surfaces. Color-Rite filler can also be used for repairs.
- Pack any unused materials and provide them to the owner. Store them in a dry place in case future repairs or replacements are needed.

### 24 Hours After Installation

- Begin by sweeping or vacuuming the floor to remove any loose dirt or debris. Then, clean the floor using a suitable hardwood floor cleaner.
- For short-term floor protection, consider using Ram Board or a similar product. You can also repurpose the original cardboard boxes that the flooring came in to protect the floor's surface.
- If you need to cover the floor for an extended period, ensure complete coverage, as some wood species may experience slight color changes when exposed to light. Use a covering material with a vapor permeance (perm rating) of 1 perm or more (tested according to ASTM E-96) to prevent moisture or vapor from being trapped on or within the floor.
- Avoid fastening floor protection directly to the wood floor surface. When using sheets of material to protect the floor, be cautious not to let the tape used to join them come into direct contact with the floor's finish. Instead, tape the sheets together without taping them to the floor.
- When moving heavy appliances or furniture across the floor, place plywood or hardboard underneath to prevent damage.
- Normal foot traffic on the floor and placement of heavy furniture is now permissible.

# POST INSTALLATION: Considerations for Radiant Floor and Electric Mat Heating Systems

## Considerations and Instructions for Radiant Floor Heating Systems

Warranty coverage is provided for all Grand Surfaces floors installed over radiant floor heating systems. To ensure the warranty validation for such installations, please complete the Homeowner/Project Manager Responsibility Form (located on page 20) and submit it to [info@grandvalleytile.com](mailto:info@grandvalleytile.com) before beginning the installation.

Additionally, it is crucial to adhere to the Wood Flooring Installation Guidelines of NWFA and the specific guidelines provided by Grand Surfaces (refer to page 8, Section 3, and page 19, Section 3) during the floor installation process.

- Prior to initiating the radiant floor heating system for the first time after installing wood flooring, it is strongly advised to verify that the Radiant Floor Heating System Subfloor Preparation process (refer to page 8, Section 3) has been carried out correctly. Starting the radiant floor heating system without properly curing the concrete subfloor can result in irreversible damage to the wood flooring.
- When starting the radiant floor heating system for the first time or after an extended period of being turned off, it is important to gradually introduce heat over several days to allow the wood floor to acclimate properly.
- When turning the radiant floor heating system on or off, it is crucial to avoid temperature fluctuations of more than 3°C (5°F) per day in the subfloor.
- After the installation is fully completed, wait for 24-48 hours before gradually increasing the temperature of the system by no more than 3°C (5°F) per day.
  - Maintaining a relative humidity level of 30-50% year-round is essential, particularly when using radiant floor heating systems, as they tend to create dry heat. If necessary, utilize permanent or portable humidifiers to achieve and sustain the required ambient conditions.
  - The temperature generated by the radiant floor heating system should never exceed 29°C (85°F) under any circumstances. Allowing the temperature to surpass this limit can cause severe damage to any engineered wood floor.

## Special Considerations for Electric Mat Heating Systems

Every Grand Surfaces floor is guaranteed for installation over electric mat heating systems such as NuHeat, but it is crucial to pay special attention to this type of application. To ensure that the warranty for an installation over an electric mat heating system is valid, it is essential to follow the following requirements.

- A Grand Surfaces floor must be installed using the Full Glue-Down Installation Method exclusively (page 12-13).
- Ensure that the electric mat system is operational before installing hardwood flooring. Maintain a surface temperature below 80°F (26°C).
- Install underfloor wood temperature sensors as required.

# CARE AND MAINTENANCE of a Grand Surfaces floor

## **Homeowner Responsibility ~ Please Read Carefully**

- A Grand Surfaces floor must be installed using the Full Glue-Down Installation Method exclusively (page 12-13).
- Ensure that the electric mat system is operational before installing hardwood flooring. Maintain a surface temperature below 80°F (26°C).
- Install underfloor wood temperature sensors as required.

## **Cleaning a Grand Surfaces floor**

It is of utmost importance to maintain cleanliness and dryness of any Grand Surfaces wood floor at all times.

- Immediate attention should be given to any spills as water is not compatible with real wood floors. Wipe up spills promptly using a soft dry cloth or carefully remove with a wet/dry vacuum. Ensure thorough drying without direct exposure to heat.
- Regular cleaning of a Grand Surfaces floor is essential and should be incorporated into the cleaning routine. Kitchen areas should be cleaned twice as often as other areas.
- When using a vacuum cleaner, employ a soft brush attachment to capture dirt, sand, and clean grooves and distressing marks. Use a plastic attachment in corners and hard-to-reach areas to prevent scratches from hard metal ends. Avoid using a vacuum with a beater bar attachment as it may damage the Grand Surfaces floor.
  - For sweeping, use a soft, fine bristle broom to remove grit and prevent scratching or marring the floor.
  - For more thorough cleaning, utilize an all-purpose floor cleaning kit such as Bona Hardwood Floor Cleaner with Bona Hardwood Floor Mop, or an equivalent product approved by NWFA. Clean as needed. Never use wax, oil-based detergent, or general-purpose household cleaners.
  - Avoid wet mopping or using steam cleaners on wood floors. Water from wet mops or steam cleaners can penetrate the grooves and spaces between individual planks, causing irreversible damage.
  - Place entry mats outside exterior doors and absorbent floor mats inside all entranceways to prevent dirt and moisture from being tracked onto the floor. Regularly shake out, wash, and vacuum these mats.
  - Use absorbent mats in front of sinks to catch spills. If these mats become wet, ensure they are fully dried before placing them back on the floor.

## **Protecting a Grand Surfaces floor**

- Whenever feasible, it is advisable to remove shoes before entering a space with a Grand Surfaces floor to reduce the tracking of dirt on the soles. This practice not only promotes cleanliness but also contributes to a more hygienic environment. It is recommended to refrain

from wearing high heels, cleats, cowboy boots, or work boots on any wood floor, as the concentrated pressure from these types of footwear can cause indentations on the floor's surface.

- Keeping pet nails trimmed and minimizing active play on wood floors is recommended to prevent scratching and dulling of the wood's finish.

- To protect the wood floor, it is advisable to use felt pads or soft furniture protectors under all furniture. Office chairs, in particular, can be detrimental to hardwood floors if equipped with narrow gliders or hard casters. Switching to wide casters with soft materials that are gentle on hardwood floors is recommended if feasible.

- When relocating furniture, appliances, or any heavy objects across a hardwood floor, it is always advisable to lift and move them instead of sliding them across the surface. For large appliances, ensure that sufficient protection, such as plywood, is in place to safeguard the finish from scratches and prevent grooves or dents on the wood.

- To prevent permanent marks on prefinished wood floors, it is recommended to elevate potted plants, keeping them from direct contact with the floor surface. Moisture can seep from ceramic pots and cause damage.

- Area rugs complement wood floors nicely but require regular and thorough cleaning, both on the top surface and underneath. Natural fabric rugs are preferred. Avoid using rubber or plastic-backed mats as they can trap moisture underneath, potentially leading to irreparable damage to the wood surface. In areas exposed to constant bright sunlight, it is advisable to periodically rotate area rugs to mitigate discoloration or fading caused by continuous UV exposure.

### **Proper Humidity Control for a Grand Surfaces floor**

Wood flooring, including high-quality engineered wood flooring, can undergo expansion and contraction when subjected to significant fluctuations in humidity. To reduce the risk of shrinkage or expansion in a Grand Surfaces floor, it is strongly advised to utilize an appropriate humidifier in dry climates, particularly during the dry winter season. Similarly, in hot and humid regions during the steamy summer months, employing a suitable dehumidifier is **highly recommended to maintain optimal humidity levels. These measures help to preserve the stability and condition of the wood flooring.**

- In order to guarantee the continual stability of a Grand Surfaces floor, it is necessary to maintain the recommended levels of temperature and humidity at all times, especially when the space in which a CRAFT floor is installed is not occupied for long periods of time.

- It is recommended to keep the spaces in which a Grand Surfaces floor is installed at a constant temperature of 15–26° C (60–80°F).

- It is extremely important to keep the spaces in which a Grand Surfaces floor is installed at a relative humidity within the range of 30–50%. Extended periods of relative humidity outside these ranges could result in irreparable damage to a Grand Surfaces floor.

- It is highly recommended to purchase a good quality humidistat to monitor the relative humidity within any space that a Grand Surfaces floor is installed, and if necessary, to purchase a humidifier or dehumidifier to help maintain the proper humidity levels throughout the changing of the seasons.

- It is important to be aware that, since wood is a natural product that readily reacts to changes in relative humidity, it is expected that a small amount of gapping may occur as the environment in which a Grand Surfaces floor is installed cycles through the seasons.\

### RECOMMENDED ADHESIVES GUIDE

ADHESIVE PRODUCT		CRAFT-APPROVED FOR: Full Glue Down Installation Method	CRAFT-APPROVED FOR: Fastener with Partial Glue Down Installation Method (In Cartridge/ Tube format)	CRAFT-APPROVED FOR: Floating Installation Method	Green Building Rating System <i>CREDIT ELIGIBLE (LEED® ETC.)</i>	Greenguard® Gold <i>GGG® CERTIFIED TO HAVE LOW VOC's / EMISSIONS</i>	CRAFT-APPROVED FOR: Warmboard® Radiant Floor Heat
BONA	R850T	✓	✓		✓	✓	✓
	R851	✓			✓	✓	✓
BOSTIK	BEST	✓	✓		✓		✓
	BST	✓			✓		✓
	PROCURE	✓					✓
	EFA+	✓	✓		✓		✓
	VAPOUR LOCK	✓			✓		✓
	ULTRASET SINGLE STEP	✓	✓		✓		
	GREEN FORCE	✓	✓		✓		✓
	PRO-MSP	✓	✓		✓		✓
DECOBOND	18			✓			
MAPEI ULTRABOND ECO	Eco 907		✓				
	975	✓					✓
	980	✓			✓		✓
	985	✓			✓		
	995MB	✓			✓		
ROBERTS	1406			✓			
TITEBOND	2104			✓			
SIKABOND	T21	✓			✓		
	52 WF	✓	✓		✓		
	T55	✓			✓		✓
STAUF	SMP840	✓			✓		
	SMP960	✓			✓		
	CBR970	✓			✓		
	PIC850	✓			✓		
	PUK455	✓			✓		
	PUM950	✓			✓		✓
TITEBOND	801	✓			✓		
	811	✓			✓		
	821	✓			✓		
	771	✓			✓		
	991	✓			✓		
	231	✓			✓		

# Acknowledgment of Owner's Responsibility

## FOR OPERATING RADIANT FLOOR HEATING SYSTEMS WITH A GRAND SURFACES FLOOR

In an effort to guarantee the highest level of customer satisfaction with a new Grand Surfaces floor, we feel it is imperative to ensure that homeowners and project managers who intend to install a Grand Surfaces floor over a radiant floor heating system have as much knowledge as possible before installation is complete, and they begin living on their new floor. AS SUCH, GRAND SURFACES REQUIRES THAT THE HOMEOWNER OR PROJECT MANAGER REVIEW, UNDERSTAND, SIGN, AND SUBMIT THE FOLLOWING IMPORTANT INSTALLATION GUIDELINES IN ORDER FOR THE WARRANTY TO BE VALIDATED.

Grand Surfaces believes it is imperative that homeowners understand the installation process and operating protocols of their radiant floor heating system, as well as the specifics of always maintaining proper ambient conditions, in order to ensure optimal performance of their Grand Surfaces floor. To download the complete Grand Surfaces Installation Instructions, which also includes important care and maintenance information, visit [grandsurfaces.com](http://grandsurfaces.com).

Proper operation of a radiant floor heating system, particularly when paired with a real wood floor, requires a deeper understanding and a commitment to responsible action compared to traditional heating systems. The following points outline key considerations:

1. Maintaining relative humidity between 30-50% throughout the year is crucial. If necessary, utilize humidification and/or dehumidification equipment to achieve the required conditions.
2. The temperature of the radiant floor heating system should never exceed 29C°(85F)° at the surface of the floor.
3. When initiating a radiant floor heating system for the first time or after an extended period of inactivity, gradually increase the heating over several days to allow the wood to acclimate properly. When turning the system on or off, avoid abrupt temperature changes of the subfloor by more than 3°C (5°F) per day.
4. Homeowners and project managers should understand and accept that wood is a natural material, and as such, it may experience slight expansion or contraction due to temperature, relative humidity, and seasonal changes. This could lead to minimal gaps in width and/or length between flooring boards, which should not be considered a product defect.

The Grand Surfaces Product Warranty will remain valid if the installation adheres to the NWFA's Wood Flooring Installation Guidelines and follows the specific recommendations and instructions provided in the Grand Surfaces Installation Instructions, particularly those related to radiant floor heating systems. It is crucial to follow these guidelines before, during, and after installation.

To ensure compliance, please provide the necessary information and sign the form below. This indicates that you have read and understood the Owner Responsibility Acknowledgement and agree to operate your radiant floor heating system according to the guidelines mentioned above. Once signed, submit the form to [info@grandvalleytile.com](mailto:info@grandvalleytile.com). Failure to do so may result in the voiding of the Grand Surfaces Product Warranty for installations over radiant floor heating systems.

Name: \_\_\_\_\_ Product: \_\_\_\_\_  
Site Address: \_\_\_\_\_  
Builder / GC Name: \_\_\_\_\_ Square Footage: \_\_\_\_\_  
Dealer Name: \_\_\_\_\_ Installer name: \_\_\_\_\_  
Date of Purchase: \_\_\_\_\_ Date(s) of Install: \_\_\_\_\_  
Homeowner Signature: \_\_\_\_\_

*(PLEASE PRINT NAME AND DATE ABOVE)*