



Radiant Heat Compliance Form

In order to validate Vintage's warranty the process **MUST** be followed. **The compliance form must also be signed by the installer and the homeowner prior to material shipping from Vintage's warehouse.** Form must be signed and returned (a copy will suffice) back to Vintage hardwood flooring along with the purchase order for the flooring. The signed compliance form will be assigned a number and logged at Vintage Hardwood Flooring. In the unlikely event that a problem does occur this form will be retrieved for confirmation. Vintage will only warranty certain species of wood (see below) on the Engineered Crafted and Solid Sawn flooring lines only. Vintage will not warranty Pioneered solid flooring over radiant heat.

Important Note: The standard installation warranty also applies in addition to this compliance.

Sub floor Preparation:

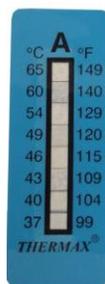
New Concrete that is less than 60 days Old – Radiant heat must be turned on and left on for a period of 45 days prior to installation of the Vintage flooring material. Turning the radiant heat on will allow the moisture that is in the concrete to evaporate from the concrete. If the concrete is not dried and the floor is installed, the moisture that is in the concrete will migrate into the wood floor. Perform a calcium chloride or polyfilm test (see attached) to determine moisture content of the concrete. The Radiant heat must be turned off for at least 48 hours prior to installing any flooring for a conditioning period.

Older Concrete – Heating and or cooling concrete must be done slowly. Vintage flooring requires that the radiant heat be turned on for a minimum of 72 hours prior to installing Vintage flooring material. Vintage flooring also requires that the radiant heat system be turned off for at least 48 hours prior to installing any flooring. Turning the heating system off allows for the concrete to properly condition.

Note: Not conditioning the concrete will void all Vintage Warranties.

Maximum Temperature:

- Maximum Tube Temperature out of boiler: 129F (54C)
- Maximum Concrete Temperature: 81F (27C) (Below hardwood flooring)



Boiler Sensor



Concrete/subfloor Sensor

****IMPORTANT ** when using any radiant heat system other than the in slab system referred to above, you must confirm with your heating contractor that the Maximum Temperature of the surface of the subfloor (below the hardwood flooring) CANNOT EXCEED 81F (27C).**

The humidity level in the home MUST be maintained **ABOVE** the listed levels in order to validate the warranty*.

- * Engineered Crafted Flooring 40%
- * Solid Sawn & Northern Solid Sawn Flooring 25%
- *U-LOC Flooring 40%

A common problem that happens is that the floor will cup and/or crack when the radiant heat is “cranked up” by individuals that are cold. Cranking the heat above the maximum temperature recommended by Vintage will void the warranty!

In order to confirm that the floor maximum temperature is not exceeded Vintage will require “thermal sensor stickers” to be applied in strategic areas of the floor and heating system. Thermal sensor stickers are strips of tape with crystals that change to black at a specific temperature. If the heat on the substrate below the hardwood flooring exceeds 81F (27C), or the tube temperature out of the boiler exceeds 129F (54C) these crystals will turn black. Once they turn black you cannot reverse the color change.

Vintage flooring will require 1 thermal tape to be placed on the main tube coming out from the heating unit in the home. Vintage flooring will also require a thermal sensor tape on the subfloor placed within 6” of the wall where the tube enters the room, the sensor must be placed over the heat tube. Thermal sensors will be mandatory in order for Vintage to warranty radiant installations. If using radiant heat systems other than concrete slab, 3 sensors must be placed in various locations on the floor.

If a problem occurs and Vintage is required to inspect a potential claim, Vintage will require that these thermal sensors are removed for verification of temperature. **If these sensors are not available to Vintage in accordance with our installation guidelines, the claim will be denied!** It is extremely important that the sensors be placed in an area where it can be extracted by Vintage for temperature verification! Vintage requires that the installer draw a diagram on the placement of the sensors in the main heat floor area. This diagram must be submitted to the homeowner and Vintage Flooring for record keeping.

Compliance Form

The Radiant Heat Compliance form must be completed and signed to validate radiant heat warranty. A copy must be submitted to Vintage Flooring with the purchase order when ordering a floor. It is the responsibility of the dealer to provide this completed form when ordering material.

In signing this compliance form I agree that I will not exceed the maximum temperature as per the above mentioned Vintage guidelines. I also agree that I will install the thermal sensor strips in accordance with these guidelines. I will also keep a record of the placement of these sensor strips so that if they are required I will know where their location is, and will make them available for extraction in the unlikely event of a claim.





Calcium Chloride Test

The **Calcium Chloride Test** works by measuring changes in weight of anhydrous calcium chloride crystals.

A small plastic dish of crystals is sealed with a plastic tape. The entire dish is weighed on a gram scale prior to exposure and the weight, date and time the test was started must be recorded. The lid is then opened, and the dish of crystals is carefully set down on the concrete for 60 to 72 hours. The dish is enclosed within a 7-by-10-inch cover, which is sealed to the concrete. During this time, the only source of moisture being absorbed by the crystals is what can evaporate out of the covered concrete surface area.

At the end of the test, the dome is removed and the lid is placed back on the dish and sealed. Again the dish is weighed on the gram scale and the date and time are marked. The change in weight is multiplied by a constant and divided by hours to provide an estimated rate of evaporation, in pounds (which is the equivalent weight of the water that evaporates out of a 1,000-square foot surface area during 24 hours). Water weighs 8.3 pounds per gallon. If the test reports 8.3 pounds emission, then one-gallon of water is leaving a 1,000 square foot surface area in 24 hours.

A conservative but generally recommended allowable amount of moisture emission as expressed by the calcium chloride test is 3.0 pounds per 1,000 square feet per 24 hours at the time of the installation of the flooring. A note of caution: Use care in lid dealing and removal of the dish and weighing as exposure to atmosphere will dramatically affect the results.

Polyfilm Test

The Polyfilm Test: Pieces of 24-inch squares of 6mm polyfilm are placed at several points on the subfloor, sealed to the subfloor on all four sides with silver duct tape. After 24 hours, the patches are removed and inspected for signs of condensation. If beads of water are found on the subfloor or the concrete appears darker, further testing is necessary. If there is no indication of moisture under the polyfilm, the installation may proceed. The reading is valid at 24 hours, but it's even better if the test can stay in place until 72 hours have passed.

The polyfilm test can also be "accelerated" by using a heat source (such as a 40 to 60 watt light bulb) 18 inches above the plastic.



Approved Radiant Heat Species

| | |
|---------------------|--------------|
| Black Walnut | Yes |
| Hickory | No |
| Jatoba | No |
| Maple | Yes * |
| Tigerwood | Yes * |
| Red Oak | Yes |
| White Oak | Yes |

*** Indicates species that are more susceptible to movement and special attention must be taken to adhere to maximum temperatures.**



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Radiant Heat Compliance Form

Dealer Name: _____ Home Owner Name: _____

Address: _____ Address: _____

Tel: _____

Dealer Rep. Name: _____ Email: _____

Signatures below will confirm that all parties have read and understand the radiant heat requirements as per the Vintage warranty prior to installation.

Dealer Signature: _____ Home Owner Signature: _____

Date: _____ Date: _____

Details of Product Installed: 9/16" Engineered 3/4" Solid Sawn U-LOC

Sq. Ft: _____ Grade: _____

Species: _____ Width: _____

Color: _____ Glued or Floated: _____

Installer Name: _____

Installer Tel: _____

Calcium Chloride Test Performed Y/N: _____ Results: _____

Polyfilm Test Performed Y/N: _____ Results: _____

Signature: _____

Date: _____

Date Installed: _____

Check box for those that have drawings of the location of subfloor sensor:

Homeowner Dealer Vintage: Date Rec'd _____

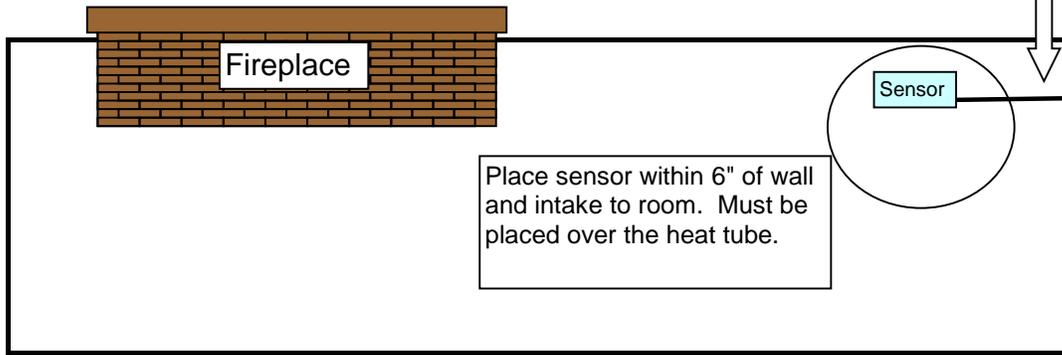
Check box to confirm that a sensor has been attached to the heating unit:

For Vintage Use Log # _____

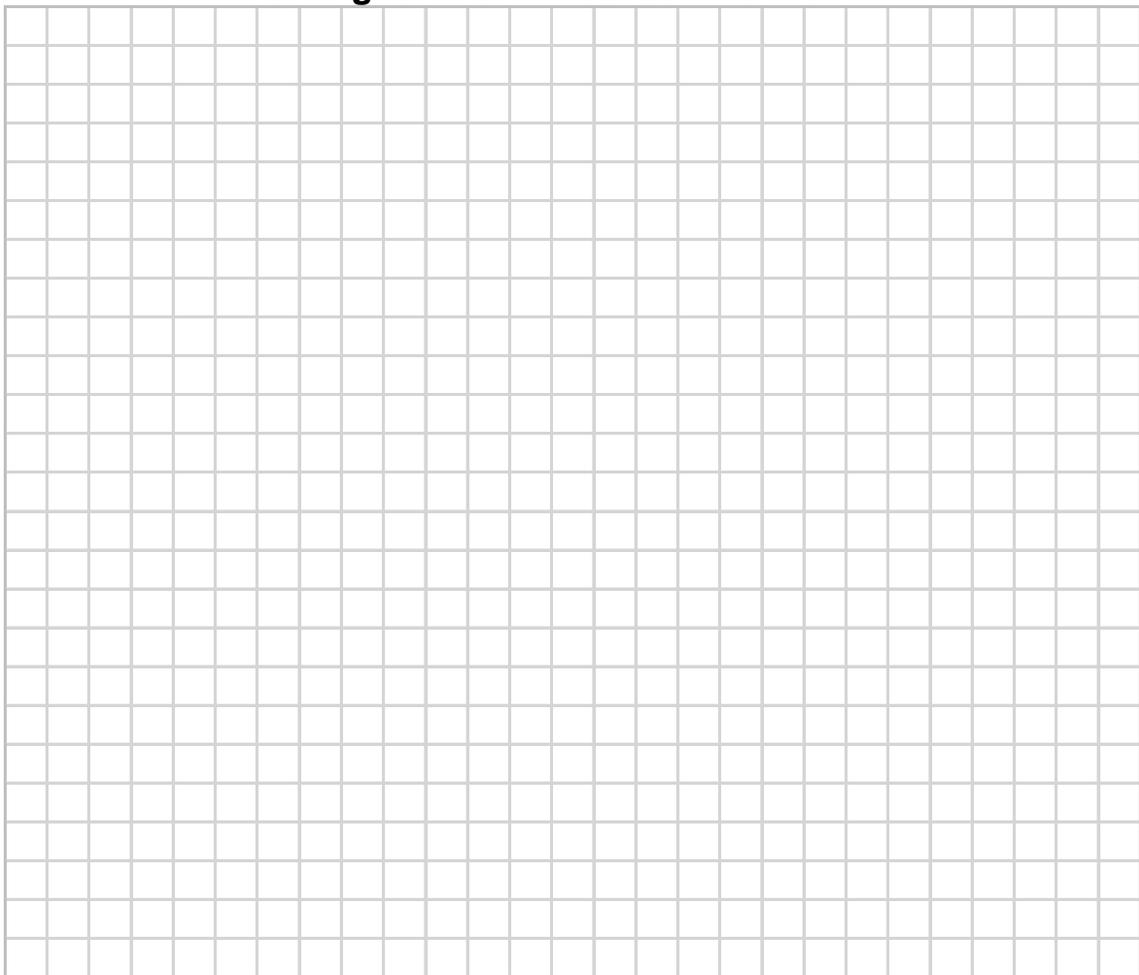
Date Rec'd: _____ Approved by: _____

Sample Drawing

22" from north wall, entering room from east wall



Drawing for thermal sensor location



Has the sensor been attached to the boiler? Y/N _____

| | |
|------------------|------------------|
| Dealer: _____ | Homeowner: _____ |
| Signature: _____ | Signature: _____ |
| Date: _____ | Date: _____ |