

RADIANT HEAT

COMPLIANCE INFO

Please note that this warranty works alongside our Warranty. In order to validate the warranty, this process must be followed. Once both the homeowner and installer have completed and signed the Radiant Heat Compliance Form, please send a copy along with the original order confirmation to:

BY MAIL: State of the Art Wood Floor Gallery
320 East 59th St.
New York, NY 10022

BY E-MAIL: info@sotafloors.com

We will assign a file number to your form, and keep it in our records. If any problems should occur, we will have this file available for reference. It is the responsibility of your dealer to provide this form to you. In signing this compliance form you agree that the temperature will not exceed the maximum temperature as per our guidelines. It is also agreed that the thermal sensor strips will be installed in accordance with these guidelines. Please keep a record of these sensor strips so that if they are required, the location will be known, and they will be available for extraction.

SUBFLOOR PREPARATION

EXISTING CONCRETE

If the floor is existing in your house and has not been used in the last 60 days, the manufacturer requires that it be turned on for at least 120 hours to get the existing moisture out of the concrete. Once this time has passed, you are required to have the heat turned off for at least 48 hours prior to the flooring installation. Please note that you must work through this temperature conditioning gradually, as it will help the concrete slab adjust consistently.

NOT CONDITIONING THE CONCRETE SUBFLOOR WILL AUTOMATICALLY VOID YOUR WARRANTY.

NEW CONCRETE

If the concrete in your house is less than 60 days old, the radiant heat system must be turned on and must run for at least 45 days prior to installation. This will allow for the moisture to evaporate from the concrete and give it time to stabilize. This also eliminates the risk of your floor picking up any residual moisture from the concrete. Perform a Calcium Chloride or Polyfilm test to determine the moisture content of your concrete. Once all of these steps have been completed, you are required to turn off the heating system for 48 hrs before floor installation begins. Conditioning and working through cycles gradually will help your concrete slab to adjust consistently.

NOT CONDITIONING THE CONCRETE SUBFLOOR WILL AUTOMATICALLY VOID YOUR WARRANTY.

For the manufacturers flooring to remain in good condition, the indoor temperature must remain stable. Sudden fluctuations in temperature and relative humidity levels will cause the flooring to shrink, expand, contract, crack, cup and bow excessively.

A subfloor heating system is a “slow” system; it takes longer for a room to reach the desired temperature and also for the heat to dissipate. To minimize the effect that rapid changes in temperature will have on the moisture content of the wood floor, it is recommended that an outside thermostat be installed. Unlike conventional heating systems, which switch on as needed, radiant systems work most effectively and with less trauma to the wood floor if the heating process is gradual, based on small incremental increases in relation to the outside temperature.

NOTE: Warranty voids can be caused by rugs, carpets, and cupboards with limited space underneath as these can cause the heat to build up, resulting in shrinkage of joints causing cracks. Large temperature fluctuations should be avoided for subfloor heating and cooling. Cooling the floor too rapidly may cause surface condensation.

NOTE: In geographic areas that experience extreme climate and humidity conditions, it is natural, due to the inherent properties of wood, for some minor expansion and contraction to occur which could result in visual changes such as gapping or cupping. These occurrences are not covered by warranty but should self-correct with seasonal climate changes. To minimize this visual change it is important that the relative room humidity never comes below 40 or exceeds 65%.

PLEASE NOTE: If you are using anything other than portland based cement, please contact your manufacturers representative for further instructions.

IMPORTANT INFORMATION FOR RADIANT HEAT- VINYL FLOORING

WPC & SPC flooring is suitable for installation over compatible in-floor radiant heat systems. It is the homeowner's responsibility to determine if the radiant heat system being considered is compatible for use under the floor being installed. We recommend that the homeowner contact the system manufacturer and get written confirmation that the system is approved for use with SPC flooring and under what operating conditions. Please contact your sales representative for more information.

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

After installation, we recommend that the surface temperature of the floor never be allowed to exceed 82°F (28°C) and that changes in temperature be moderated in increments of 5°F (2°C) to avoid 'shocking' the floor. Where possible, we recommend the use of a data logger to monitor and record temperature and humidity conditions; this provides a record of the environmental conditions and may also help take preventive measures where conditions are outside of recommended levels.

IMPORTANT INFORMATION FOR RADIANT HEAT- ENGINEERED WOOD FLOORING

Radiant heat output is generally very dry and as a result we require that the relative humidity (RH) levels are consistently maintained between 35-55% for all floors at all times.

Do not raise or lower the temperature of a radiant heat system by more than 2.8°C (5°F) per day when turning the system on and off. Cranking the heat is not recommended as this will result in cracking & warping. Further, if a heating system's temperature is higher than our tolerances, the warranty of the flooring will be voided.

If the surface temperature of the subfloor exceeds 27°C (81°F) and the temperature of the boiler output exceeds 54°C (129°F), the temperature indicating strips will turn black. This colour change cannot be reversed.

MAXIMUM TEMPERATURE	
Maximum tube temperature of boiler	54°C (129°F)
Maximum subfloor temperature	27°C (81°F)

The manufacturer requires one surface temperature indicating strip to be placed on the main output tube of the boiler and one surface temperature indicating strip to be used for every 300 square feet of flooring installed and attached to the location where the heat tube enters each room (Please Note: 1 strip minimum per room). Installation of these strips are mandatory for the warranty to be valid.

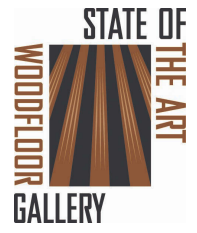
Additionally, the manufacturer requires drawings to be completed by the installer to indicate locations of heating tubes & surface temperature indicating strips. We require a copy for our records and recommend a copy is given to the home owners.

Please ensure that the temperature indicating strips are easily accessible, should a need arise to inspect them. the manufacturer will consider the warranty to be void if a representative cannot access them to perform a reading.

Prior to using the subfloor heating system for the first time, the sand/cement screed should be at least 42 days old. Set the

temperature to 20 °C (68°F) on the first day of use, and then raise it by 5 °C (41°F) everyday.

- Make sure that the supply water temperature does not exceed 45 °C (113 °F). Maintain this maximum temperature for at least 24 hours per centimetre of floor thickness.
- Like the increasing of temperature, the lowering of the water temperature should also be done in increments of 5 °C (41 °F) every 24 hours until you reach a water temperature of 20C (68F).
- The entire heating process takes 14 days – ensure there is adequate ventilation during this period to allow moisture to escape. Check the concrete for residual moisture after this process. This must not exceed 1.8% for a concrete subfloor and 0.3% for an anhydrite floor; if a liquid moisture barrier is used, the maximum is 3%.
- With water-heated radiant-heat systems, a pressure test must be performed and documented by a qualified plumber or the system installer prior to beginning the installation of your flooring. For other underfloor heating systems as Electric under floor systems please consult the manufacturer for instructions and options.
- Check heat system manufacturer guidelines.



RADIANT HEAT

DRAWING FOR THE THERMAL SENSOR LOCATION

Please indicate the parameters of the room and the location of the sensors. Please indicate how far they are in relation to static elements in the room (i.e. walls and door openings)

FOR VINYL FLOORING: Please draw pattern of radiant heat system layout in room.

HAVE THE SENSORS BEEN ATTACHED TO THE HEATING UNIT (MAIN OUTPUT TUBE OF THE BOILER)?
(only applicable for engineered flooring)

YES NO

HAVE THE SENSORS BEEN ATTACHED TO THE LOCATION WHERE THE HEAT TUBE ENTERS THE ROOM?
(only applicable for engineered flooring)

YES NO

DEALER NAME _____

HOME OWNER NAME _____

SIGNATURE SIGNATURE _____

DATE _____

CALCIUM CHLORIDE & POLYFILM TEST

CALCIUM CHLORIDE

The Calcium Chloride test works by measuring changes in weight of anhydrous (dry) calcium chloride crystals. A small plastic dish of crystals is sealed with plastic tape. The entire dish is weighed on a gram scale prior to exposure. 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" x 10" 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 1000 sq.ft. surface area during 24 hours). Water weighs 8.3 pounds per gallon. If the test reports 8.3 pounds per emission, then one gallon of water is leaving a 1000 sq.ft. 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 1000 sq.ft. 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

Pieces of 24" squares of 6mm polyfilm are placed at several points on the subfloor. These pieces are sealed to the subfloor on all four sides with silver duct tape. After 24hrs, 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 hrs, but its even better if the test can stay in place 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" above the plastic.