



Out of this world flooring at down-to-earth prices

RADIANT HEAT & WOOD FLOORS

RADIANT HEAT refers to a heating system that raises the temperature of a floor or wall surface. Radiant heat in the floor creates a macro climate of dry air that can put undo stress on a wood floor if the system is not properly designed and regulated. Some engineered flooring is warranted over radiant heat as long as correct installation procedures are followed, and the recommended relative humidity is maintained. Before installation, the system should be slowly brought to operating temperature (6-7 days), and then turned off. This is designed to drive any latent moisture out of the subfloor. After installation, the same procedure is repeated, taking care to ramp up to operating temperature slowly so as not to “shock” the wood.

Wood flooring manufacturers recommend that the surface temperature of the wood flooring does not exceed 80 degrees F. Solid wood flooring over radiant heat is endorsed by the National Wood Flooring Association only with a specially prepared floating subfloor system involving two layers of ½” plywood, or a sleeper system embedded in concrete and skinned with plywood. For wide flooring, Planet Hardwood recommends wood flooring engineered for stability over radiant heat. Wide solid wood flooring may suffer excessive seasonal movement. If solid flooring is used, the seasonal movement will be less apparent with a narrow width (3 ¼” or less), and an inherently stable wood.

Even manufacturers who warranty their products over radiant heat expect you to maintain a relative humidity of 40 – 60%. Vermont’s natural swing of seasonal relative humidity routinely exceeds that range, and so must be monitored and adjusted by the homeowner.

Solid wood will shrink and expand in response to the presence or absence of moisture. With radiant heat, this seasonal movement will happen to a greater degree than the same floor would experience without radiant heat. Engineered wood flooring, to its credit, will hold its dimension much better than its solid counterpart, but will still respond to seasonal extremes. The top wear layer will still want to shrink during the heating season, but the layers underneath are designed to inhibit dimensional change. So engineered wood flooring will have a tendency to “scallop” or cup as that top layer shrinks. This cupping will return to flat as soon as the seasons change and there is more moisture in the air. At an extreme condition of dryness, the top layer can shrink to the point of surface checking (cracks). Surface checking is an indicator that the flooring has gone through an excessively dry condition, however temporary, and is not covered in the warranties.

St George Ind. Park * 401 Barber Road * St. George VT 05495
phone: 802.482.4404 * fax: 802.482.4405 * info@planethardwood.com