

Procedure for Drying of Radiant Heated Concrete

When dealing with radiant heated floors, it is very important to have moisture levels at manufacturer of flooring recommendations. The objective is to get the residual moisture out of the concrete before any flooring is installed.

This does NOT apply to electric heating systems applied to the surface of concrete slabs and covered with a 1/2" or less layer of self-leveling compound. In those cases it is not necessary to "dry heat" the leveling compound as it will typically dry by itself within a few days. Refer to the leveling compound manufacturer's recommendation for drying times before installation of floor coverings.

Make sure the HVAC is operational and there are no leaks. *If not operating, the rooms need to be ventilated with outside air on a regular basis to minimize the moisture levels in the air to allow the concrete to dry.* The entire floor must be free of any materials to allow moisture to properly evaporate.

A) First heating sequence – 2 week cycle

Turn heat on and increase 20°F per day to max temperature

Day 1 - 80°F

Day 2 – 100°F

Day 3 to Day 12 - 120°F or max temperature

Day 13 - 100°F

Day 14 - 80°F

Day 15 turn off

*If room temperature without subfloor heating is less than 50°F insert a day of 60°F heating before day 1 and after day 14.

B) Second heating sequence – 4 week cycle

Leave heat off for 2 weeks after first heating cycle

Then repeat first heating cycle as described above

The additional heating cycle is necessary if the concrete slab is less than 6 months old.

C) Installation:

Measure moisture using Calcium Chloride test (ASTM F1879) and do not proceed until moisture level is at flooring manufacturer recommended level unless outdoor installation materials are being used.

Leave heat off for one day prior to installing flooring. Make sure slab surface temperature is between 50°F and 70°F.

Always prime concrete, unless outdoor installation materials are used.

Leave heat off for 3 days after install, then turn on and increase 20°F per day to service temperature.

D) Consult with flooring manufacturer for maximal surface temperature of slab.

Visit the Stauf web site for more information or call Stauf Technical Services at 901.820.0007.