

**ELEMENT7 ESSENTIAL INFORMATION FOR CONTRACTORS AND INSTALLERS**

In order to achieve the best possible look and finish to your Element7 floor and to ensure it lasts a lifetime please note this essential information for installers and contractors. This is intended as a guide only and is not exhaustive and if in any doubt please contact Element7 direct for further information, advice and guidance. Failure to observe these guidelines may invalidate your guarantee.

**FLOOR PROTECTION**

Element7 floors must be correctly protected from mechanical damage, cement, plaster, grout, adhesives, grit, dust, chemicals, solvents, paint and all liquids including water throughout their installation, and right up until client handover. Hardboard above lining paper offers the best protection. **DO NOT** under any circumstances let adhesive tape of any kind (including low tack) come into contact with the floor. **DO NOT** operate radiant under-floor heating below floor protection. If required, secondary heating should be used to maintain a room temperature of not less than 15°C.

**FLOOR CLEANING**

**DO NOT** attempt to damp clean builders' detritus, do not use water or a cleaning solution of any kind. Builders' detritus, plaster dust, cement - etc forms an alkali solution when coming into contact with liquids. Alkali solutions will react with the tannin in unfinished floors and irreparably discolour them; with prefinished floors, the solution will irreparably damage the finish. This can result in floors having to be replaced. Vacuum and sweep only.

Once the floor is handed over and the finish applied, the client must use only the **specified cleaning product** for that particular floor available from Element7. Do not use hardware store or supermarket floor cleaners, they may damage the finish.

**FLOOR FINISHING**

The finish for your floor if it is an oiled or waxed finish will be applied by our finishing team, not our installers. It will be done on an appropriate date to be agreed. Do not under any circumstances remove the floor protection, prior to finishing. Floor finishing can only start when all other trades have completed their works, including the fitting and painting of skirting boards where applicable. The areas to be finished must be completely clear of workmen, their equipment, all objects, be clean and must be dust free.

The **oil finishing** process will take 2 days for a regular finish and 3 days for a special finish. The finish should be allowed 48 hours to cure before the floor is used. The floor should not be damp cleaned for at least 7 days.

The **wax finishing** process will take 4 days. The finish should be allowed 8 days to cure before the floor is used.

A post installation **professional clean** will take 1 to 2 days. **N.B.** Finishing/Cleaning dates must be booked at least 3 weeks in advance.

**SUB-FLOOR REQUIREMENTS FOR TIMBER FLOOR INSTALLATIONS LEVELS**

All sub-floors must be flattened to the following tolerances: -

**+/- 3mm per 2 linear metres in all directions** for sub-floors that are prepared for a wide-plank floor covering.

**+/- 2mm per 3 linear metres in all directions** for sub-floors that are prepared for a patterned floor covering such as parquet herringbone, parquet panels, leather panels, metal briquettes and pavers.

**CEMENT SCREED**

Screed must have a moisture content less than **2%MC** and a relative humidity less than **75%Rh** when tested with a BS 8203 hygrometer. Anhydrite screed must have a moisture content less than **0.3%CM**. Measurement can only be undertaken **48 hours** after heating systems and dehumidifiers have been switched off.

Hygrometer testing involves the drilling of a 16mm (width) x 50mm (depth) hole into the screed by the sub-floor contractor, the contractor should then insert a Protimeter humidity sleeve into it; one test must be conducted for every 5 square metres. The sub-floor contractor must avoid damage to radiant under-floor heating systems, plumbing or electrical components beneath the surface of the screed. If Element 7 are installing your floor we will record the Hygrostick readings. Fast dry and rapid set screed and can accelerate the time taken to achieve the correct moisture levels, self-levelling screeds can slow the time taken.

**JOISTS**

**Plywood** must have a minimum thickness of 12mm for a wood plank floor, or 18mm for pattern or panel floors. The plywood must be screwed to the joists at 300 to 400mm centres.

**Chipboard** must have a minimum thickness of 18mm, be glued at tongue and groove and screwed to the joists at 300 to 400mm centers. All sheet joints **must** be staggered, sheets cannot be joined at door thresholds, **a single sheet must traverse the threshold**. Sheets must have a moisture content of less than 12%.

**REGULATING RADIANT HEATING SYSTEMS FOR USE WITH ENGINEERED WOOD FLOORS**

Digital dual sensing thermostats (air and **floor** temperature sensing) should be incorporated with all radiant under-floor heating systems. The remote floor sensors (probes) should be calibrated to ensure that the maximum tolerated surface temperature of the floor itself **must not exceed 27°C** in accordance with BS 8203 requirements. Setting the floor sensors to allow a maximum of 32C on the underside of a typical 20mm thick engineered wood floor, would typically regulate the maximum floor surface temperature (the topside of the plank) to 27°C, but this will be affected by the individual thermal loss for each room. Remote floor sensors (probes) can fail - therefore we recommend that 2 sensors should be installed per 10 square metres of floor as replacement is both damaging and invasive. Failure to properly regulate the under-floor heating system will risk damaging the floor.

**OPERATION OF UNDER-FLOOR HEATING SYSTEMS PRIOR TO FLOOR INSTALLATION.**

The heating system should be activated and the temperature increased in daily increments of 5C, i.e. day one 5C, day two 10C, day three 15C until the maximum temperature is reached. The maximum temperature should be maintained for at least 48 hours.

The heating system should then be cooled observing the same 5C adjustments per day. When the heating system has returned to the lowest level, switch the heating system off for 48 hours. Final screed moisture testing should then be undertaken. Once the correct readings are achieved, re-activate the heating system and once again increase the temperature by 5C per day until the installation surface temperature of the sub-floor of 15-20°C is reached, maintaining this temperature throughout the installation period. Once the floor installation is complete and prior to the floor protection being laid, the underfloor heating should be turned off. If required, Secondary heating may be used to maintain a minimum room temperature of 15°C. **The underfloor heating system must not be operated until floor protection has been removed.**

**COMMISSIONING OF UNDER-FLOOR HEATING SYSTEMS POST HANDOVER**

Once floor protection has been removed and finishing work (if required) has been completed, the underfloor heating system may be commissioned. To avoid thermal shock, the system should be turned on with an initial water flow temperature of 20°C and then increased by 3-5°C per day. Once a floor surface temperature of 25°C is reached, adjustments to thermostats, floor probes and water temperature regulators should be made. Always ensure that the maximum surface temperature of 27°C is not exceeded.

**ATMOSPHERIC CONDITIONS.**

During installation, the atmospheric relative humidity (Rh) should not fall below **40%** or exceed **60%** and room temperatures must remain between **15-20°C**. Living with the floor post installation, the same relative humidity levels must be maintained. Where radiant/under-floor heating systems are in use, the system must be properly regulated to ensure that the **floor surface temperature** does not exceed **27°C**.