Ready reckoner
Wood floor bonded to a concrete slab

- The ready reckoner is a summary of the results of calculations regarding the redistribution of residual construction water when a wood floor is laid with or without a vapour barrier, Sjöberg 2003.
- The ready reckoner refers to Kährs wood floor, Casco Elastic 3476 and DexorBond vapour barrier.
- According to the maker of the wood floor in the project, the risk level at the underside (us) of the wood floor is 65% RH.

Bonding on normal structural concrete (w/c ratio=0.7)
- In normal indoor air, a vapour barrier is already needed at 80% RH*.
- If, however, the indoor air is "dry", a vapour barrier is not needed until 85% RH*.

Bonding on self desiccating concrete (w/c ratio=0.4)
- In normal indoor air, the concrete surface needs to dry for up to 16 weeks.
- If after the adhesive is applied, the indoor air is "dry", drying for 4 weeks is sufficient.
- These drying times apply when the drying climate before the floor is laid is 20°C and 40% RH.
- The concrete is assumed to be membrane cured for 1 month before drying begins.

Recommendations from Moisture Centre, Lund University
- Always use a vapour barrier if you are not sure that the above conditions are satisfied.
- Make sure that the concrete is dried exactly as specified above; any deviation from the conditions given may cause a large change in the redistribution of the construction water.
- Deviations may prolong the drying time or, in the worst case, may cause drying to start again from the beginning. For instance, the drying time has to start from the beginning if self desiccating concrete is exposed to rain.

* Value measured in concrete slab at depth specified in www.rbk.nu (Swedish site)


The report (in Swedish) can be downloaded free of charge from www.byggnadsmaterial.lth.se/e-doc.htm