

ROVER'S FLOORING LTD.

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## ROVER'S TWINPLANK Wood Flooring on Under-Floor Heating

## Manufacturer's Recommendation

ROVER'S TWINPLANK engineered flooring (4, 6 or 8 mm top-layer on top of 9 or 12 mm Birch Plywood) can be used on under-floor heating without problems; however a number of rules are essential.

The recommended procedure for Water Based Under Floor Heating systems is as follows:

- 1. Ensure that the concrete floor has fully cured. The measured moisture content should read 2.5 % actual Moisture Content. When taking multiple readings across the floor none of these may exceed 3%.
- 2. The under-floor heating system should be a water-based system embedded in a screed, not electric matting as they may develop extreme temperatures when covered up.
- 3. The warm water tubing needs to be installed in a fine or medium distance pattern, not exceeding a distance between the tubes of 500 mm and a minimum of 20 mm below the surface of the screed.
- 4. The Under Floor Heating system must be fully operational, pressure tested and carefully taken into use.
- 5. Allow the system to heat up gradually with 3-5 degrees per day to normal running temperatures.
- 6. Let the system run for approximately 2 weeks continuously to allow the pipes to warm up and expand. This will show any hair cracks in the system while in expanded state. Any problems will show up as dark patches in the screed. It will also dry out residual moisture in the screed.
- 7. After the system has been allowed to run continuously for two weeks, turn down the temperature to approximately 14 degrees contact temperature.
- 8. Keep the flow through the system to create an even temperature across the floor and let the floor cool down for a day or two.
- 9. The maximum transfer temperature through the screed may not exceed 28°C.
- 10. Prior to the installation of the wooden floor the wood must be allowed to acclimatise in the building under normal living conditions (heating and ventilation) for a minimum of 7 days.
- 11. The flooring is to be glued down using 1-component adhesives of SIKA, either T54 or T52 trowel-on type, or Lecol MS250 or an equivalent adhesive.
- 12. In case the SIKA T52 Acoubond system with the Silent Layer Mat is used then this will add to the heat-resistance value of the flooring. This may cause the end-user to increase the operating temperature resulting in exceeding the maximum transfer temperature, which may cause additional shrinkage and gaps between the individual boards.
- 13. Allow the adhesive to cure for at least 24 hours.
- 14. After the curing the underfloor heating system can be taken into use by slowly increasing the water temperature with 1 degree per day until the required operating temperature is reached.
- 15. Keeping a stable Relative Air Humidity (RaH) is required to avoid excessive gap forming between the individual boards. Recommend RaH is between 45 and 65 %.
- 16. There is always a risk of small openings (gap-forming) between the individual boards with the use of underfloor heating; a guarantee on gap-forming can not be issued and it is not considered a defect but merely a natural response of the floor to the changes in temperature.
- 17. To avoid damage to the sub-floor and the wooden floor make sure that the start-up protocol of the underfloor heating is followed and respected.
- 18. Do not cover the floor up with the heating in operation as that may cause Thermal Blocking causing the temperature to be locked up and rise above the maximum limit. Make sure there is airflow possible under furniture and if rugs are used make sure they allow the heat to pass and do not obstruct it. Thermal Blocking can cause the floor to crack or delaminate and can result in structural failure of the floor.

ROVER'S TWINPLANK comes with a manufacturers guarantee for use on water-based Under Floor Heating systems and is available in a range of different wood types, either pre-finished or unfinished.