GUIDELINES FOR THE INSTALLATION OF AN ENGINEERED FLOOR ON UNDERFLOOR HEATING

Research has shown that the quality of the floor surface strongly affects the feeling of comfort.

With wood flooring the feeling of comfort is there from the outset due its favourable warm nature. The advantage is that wooden floors always maintain the ambient temperature and never feel cold in the same way that "hard" surfaces such as tiles or stone would.

When laying wood floors on cement screeds, make sure a time frame of around 4-5 weeks is allowed for curing and natural drying. To remove residual moisture completely, it will be necessary to adhere to the process of turning the heating up and down, as described below.

When planning the underfloor heating, take care that the pipes are not laid too far apart from each other (distance of approx. 150 mm), in order to achieve a consistent surface temperature.

At present two different underfloor heating systems are in use:

a. Warm water : small pipes are laid in the screeds, min. 4,5 cm under the screed surface. Warm water is sent through these pipes and the resulting heat radiates up through the wooden flooring.
b. Electrical: Comes in various forms such as rolls of loose cable to lay in screed or on top of the subfloor and in the form of matting but the basic principal remains the same. Electricity is passed through the cabling, heating it up and therefore passing the heat through the wooden flooring. This method can be particularly useful where there is a low ceiling height or restrictions with door clearance.

For both heating systems the following has to be observed:

1. The surface and underside temperature of the wood floor should not exceed 26-27 °C. Also, at these temperatures it will start to feel uncomfortable for the occupants and dust particles will be stirred up at temperatures exceeding 28°C.
2. Underneath the heating system there must be good heat insulation and a heat diffuser above it.

When using underfloor heating careful consideration should be given to exactly which species of wooden flooring should be used. Different species and grain structures will react in different ways when underfloor heating is turned on, therefore species such as beech should be avoided. Generally, timber with plain, even growth rings & straight grain will conduct heat better than timber with heavily figured grain. Additionally, the density of the wood can be a major factor and heat conduction of hardwood is approx 30% higher than that of softwood.

To guarantee a damage-free installation of the floor, it is necessary to follow technical guidelines that refer to the wood floor as well as to the subfloor (heat insulation, moisture insulation). For this reason the floor should be planned and laid by a professional installer.

(Excerpt of a bulletin issued by the Federal Board of Forestry Industry, 1033 Vienna, Marxergasse 2, postal code 6)