



Naturally

## Ekopine Oil Impregnation | Ekopine Oil-Impregnated Wood

In the nature a coniferous tree protects itself by producing resin (extractive agents), thus stopping detrimental rot fungi from growing. The Ekopine Oil Impregnation Method is based on these same extractive agents. In this method wood is not poisoned but it is impregnated with tall oil so that it becomes hydrophobic.

Wood is oil-impregnated industrially using pressure and heat. The method suits well for precut, planed and round timber, and, in addition, the oil treatment can also be done to unseasoned wood. Oil-impregnated wood cracks minimally, so it can be successfully used, for example, in playground structures and other objects where cracking should be avoided.

Ekopine has researched oil-impregnated wood in cooperation with leading European research institutes since 1994. A long time-span is needed to obtain results on rot and erosion resistance. The resistance of wood has been examined in various laboratory tests. Field tests have been done in, for example, Finland, Sweden, the Netherlands, Germany and Britain. The longest tests have already lasted for almost 10 years.

With Ekopine oil impregnation technology wood can be seasoned, protected, coloured, and protected for the future (for example anti-cracking treatment) in one and same manufacturing process.

### EKOPINE OIL IMPREGNATION

#### Properties

**Environmentally friendly treatment oil:** no volatile solvents, no biocides, no heavy metal compounds, easy to recycle the products, positive result of life cycle analysis. The natural defence mechanisms of the tree are utilised in this method. A living tree protects itself with the same principle by producing resin in the damaged place. If needed, Ekopine oil is impregnated through the whole wood. The wood becomes resistant and hydrophobic. Dry wood withstands rot. Impregnated wood is easy to machine.

The Ekopine process has been made a life cycle analysis (LCA), according to which the process stands out from biocide impregnation or other methods based on natural oils.

**Environmentally friendly treatment process:** several processes have been combined, saves energy, lucrative equipment expenses relative to the production capacity, saves raw material considerably, enables the use of new, cheaper wood raw material

- a new, cheap, quick and energy-saving process
- impregnation, drying and colouring in the same process
- no need for volatile solvents
- no need for salt impregnants or creosotes, or other chemical or biological (biocide) effective agents

