

THE ETHANOLIC EXTRACT OF PROPOLIS IN WOOD PROTECTION

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ABSTRACT

Propolis from various origin and its extracts, especially ethanolic have been reported to indicate antifungal properties. Not only is the activity of propolis against fungi widely used in numerous applications, but it was also used in wood protection. The paper presents the preliminary results of biological and chemical analysis of Scots pine (*Pinus sylvestris L.*) modified with the ethanolic extract of propolis (EEP) in different concentrations. The wood treated with EEP obtained resistance against wood destroying fungus – *Coniophora puteana*, which is recommended to test preparations for protection of wood of coniferous species. The antifungal tests were conducted with the use of the procedure described in PN/EN 113.

The structural analysis of wood treated with EEP was performed using FTIR spectroscopy. Moreover, the results of chemical analysis of extract of propolis were also examined. It indicates that the ethanolic extract of propolis could be used in natural and bio-friendly wood protective formulations also in connection with other natural or non-toxic materials, like organosilanes.

Key words: propolis, *Coniophora puteana*, Scot pine

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