



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The Effect of Wood Specimen Length on the Proportional Saturation of  
Preservative Fluid in Sitka Spruce (*Picea sitchensis* (Bong.)Carr.) and Corsican  
Pine (*Pinus nigra* var. *maritima*)

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**Abstract:** In this study, the proportional saturation and the fluid uptake of preservative liquid (that was) applied under the same pressure was investigated comparatively on the various longitudinal length of wood specimens in the two softwood species. Wood specimens of Sitka spruce (*Picea sitchensis* (Bong.)Carr.) and Corsican pine (*Pinus nigra* var. *maritima*) representative of two different permeability classifications, cut into five different lengths were treated with tanalith-C using the full-cell process under the same conditions. It appeared that longitudinal fluid flow decreased with increased specimen lengths. The shorter lengths were saturated effectively due to the shorter flow paths, and their retentions were higher than longer lengths. This decrease in permeability was attributed to more blockages in pit pores. According to this findings, it may be said that if the applied pressure is not modified, the void volume of wood on the various longitudinal length of the specimens (that were) treated under the same conditions would be filled in different amount of the preservative liquid.

**Key Words:** Softwood, Anatomy, Preservation, Longitudinal Flow, Full Cell, Proportional saturation.

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