

Treatments for modification of quamwood (*Shizolobium amazonicum*)

M.E. Carneiro¹, W. L.E. Magalhães², G.I.B. Muñiz¹
¹ *Universidade Federal do Paraná, Curitiba, PR, Brazil*
² *EMBRAPA Florestas, Colombo, PR, Brazil*

The quamwood (*Shizolobium amazonicum*) is the source of the Brazilian Amazon, with more native species planted in the country. Species which has a rapid growth, can be cut with five years of age. Its wood is used in construction since even for the manufacture of furniture. Displays light coloring is easily processed, but low natural durability. Thus this study sought to develop treatments to improve durability. Were impregnated styrene, furfuryl alcohol (FFA) and nano silica. The techniques used for characterization were scanning electron microscopy (SEM), thermogravimetric analysis (TGA), infrared spectroscopy (FTIR) and test the natural weathering. By SEM it was evaluated the characteristics of the treatments, the samples treated with the styrene perceives that he did not penetrate inside the cell wall of the timber, instead, it adhered onto the surfaces of the cell wall and into the lumens of the cells. However, the samples treated with APF impregnation is in the cell wall, when added to the nano silica treatments that also held the cell lumens.

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mayaraecarneiro@gmail.com – Lanaqm UFPR, CEP 80210-140, Curitiba, PR, Brazil