Use of mangrove bark tannin for wood adhesion.

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Abstract:

The bark of mangrove trees (mainly Rhizophoraceae) in Indonesia contains large amounts of tannins. Use of this natural resource as adhesive for plywood and particleboard has not been fully investigated. Thus far, results have shown promise, depending on the kind of tannin, degree of pH, curing temperature and pressure, and level of PF in the glue mixture. In general, the gluability of tannin is acceptable, except for low water resistance. Variations in bonding strength due to type of tannins may be explained when the structure and reactions of these tannins have been identified and their properties evaluated.