

Evaluation of quality wood bonding with resorcinol and tannin formaldehyde adhesive

Renata RENZO,
Fábio A. MORI,
Lourival M. MENDES,
Francisco C. GOMES

Universidade Federal de Lavras,
Lavras, MG - Brasil

Executive Summary

The reconstituted products of wood are important in the current section national forest products. That fact is due mainly for a word tendency, for the substitution of the solid wood for constituted products of wood originating from nobleless wood and mainly for the generation of high products with quality. Those products are usually composed by wood strands, veneers, lumbers, particles or wood fiber bonding together with appropriate adhesive. The final properties of the several types of panels suffer direct interference of the species and employed adhesive, as well as the employed process in it making. Those are defined by the requested properties, place and application type. The industry of wood panels have fragile point, the great dependence of adhesives of high quality that can reach high market values. The adhesives possess excellent properties, however, they are derived of petrol, that price has elevated continually in the last years. In this work alternative wood bonding will be presented for the production of laminated veneer lumbers (LVL). Will be used two kinds of adhesives, the phenol resorcinol and the phenol tannin of *Acacia negra* that will be used, that will be prepared in the following proportions: 100% resorcinol, 75% resorcinol plus 25% tannin, 50% resorcinol plus 50% tannin, 25% resorcinol plus 75% tannin. The adhesives will be used for marking the LVL structural panel, that later their will be submitted of resistance to shearing (NBR Project 31: 000.05-001/1) for the evaluation of the quality and resistance of the glueline produced.

Keywords: adhesive; wood bonding; properties; alternative; glueline.