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# Soy flour dispersibility and performance as wood adhesive

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## Abstract

Soy flour adhesives using polyamidoamine-epichlorohydrin (PAE) resin as the curing agent are being used commercially to make bonded wood products. The original studies on the soy-PAE adhesives used purified soy protein isolate, but the much lower cost soy flour is now used commercially. We examined the performance of commercially available soy flours that have their proteins either mainly in their native (90 protein dispersibility index (PDI)) or denatured (70 and 20 PDI) states. We expected that the more native the protein, the better the adhesion. However, the denatured flours bonded with a low level of adhesion. The large difference in adhesion between the soy flours had

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