

Development of Veneer Strand Lumber (VSL) Product

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While both can have similar structural performance, veneer-based composites such as LVL (Laminated veneer lumber) are generally more than 30% lighter and hence use significantly less wood fiber than strand-based products such as PSL (Parallel strand lumber or ParallamTM) and LSL (Laminated strand lumber). On the other hand, strand-based products have the advantage of using smaller and lower quality logs than peeler logs. In this presentation, we will first discuss the pros and cons of both product types. Then we will present a new light-weight, low cost structural composite lumber product. The veneer strand lumber (VSL) product is of a three-layer structure, in which the upper and lower surface layers consist of veneer sheets in longitudinal alignment, and the core layer is made of veneer strands in either longitudinal or lateral (cross) alignment. VSL combines the attributes of existing products like LVL and PSL by using both full veneer sheets and strands in one product. The strands can be cut from fishtail or random veneer sheets to improve fiber recovery. Novel processing methods including strand cutting and strand aligning will be presented to make such a product.