

Recyclability of plywood

Wood-based materials such as plywood are part of the wood utilisation cascade. Wood is a regrowing raw material that is sustainably produced, used in a material-efficient way and recycled or used for efficient energy recovery at product's end-of-life. This intertwining of material and energetic utilisation closes the loop of material and energetic uses. Landfilling of wood waste no longer takes place in Germany.

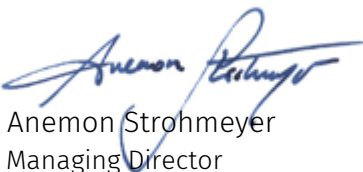
The recycling processes for wood waste are specified in the German Waste Wood Ordinance (Altholzverordnung). According to this ordinance, both material recycling and energy recovery are recognized as high quality. The recycling regulation of the German Waste Wood Ordinance is currently being revised with regard to the European five-step waste hierarchy. The explicit priority of reuse and recycling prior to energy recovery can already be found in some - not material flow-specific - regulations (e.g. the German Commercial Waste Ordinance (Gewerbeabfallverordnung)).

Recycling refers to the processing of waste wood into wood chips and wood shavings for the production of wood-based materials. Waste wood of categories AI and AII without further removal of coatings and waste wood of category AIII after removal of the PVC coating is approved according to the German Waste Wood Ordinance for wood-based materials such as particle boards.

Category AI means untreated, purely mechanically processed waste wood (such as pallets). Category AII means treated waste wood (glue-laminated, painted, coated, varnished or otherwise treated waste wood – not including PVC and wood preservatives). In contrast, category AIII means waste wood treated with PVC (but does not include wood preservatives either).

Usually plywood products fall under waste wood category AII, as they are not treated purely mechanically, but are also not treated with PVC or wood preservatives. Category AII waste wood is approved for material recycling (cf. Section 3 para. 1 German Waste Wood Ordinance in combination with Annex I). The same applies to composites such as technical plywood, provided it consists more than 50 percent by mass of wood, cf. Section 2 (3) German Waste Wood Ordinance.

When plywood products reach the end-of-life, they can be recycled according to the requirements of the German Waste Wood Ordinance. The quantities of secondary raw materials required by the recycling wood-based panel industry in Germany currently significantly exceed the amount of plywood waste in Germany. But also the use of secondary raw materials in the engineered wood industry implements a circular economy in the area of wood, for details on the circular economy, see for example <https://statusbericht-kreislaufwirtschaft.de/>.



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