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SAWMILLING OF WOOD



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Ecological Aspects of Wood Processing

Each industry has its own specifics in terms of environmental impact

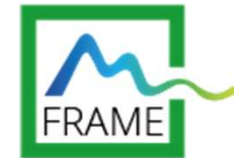
If we want to compare the ecological impacts of individual sectors, there must be uniform assessment criteria

LCA = life cycle assessment

LCA is a method of assessing the life cycle of a product or service in terms of its impact on the environment



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Ecological Aspects of Wood Processing

SAWMILLING

The initial raw material can be obtained without harmful interventions in the environment

Products and semi-finished products can be produced without intolerable environmental impacts

Using the product does not harm the environment

Disposal of the product is possible either through material transformation with new incorporation of the substances created into the natural circulation, or harmless thermal use is possible

The energy dependence of the entire cycle is low



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Ecological Aspects of Wood Processing

Ecological aspects of wood

- the starting raw material is renewable, with a permanently positive effect on the environment
- a growing tree binds approx. 250 kg of carbon for every 1m³ of wood material, thereby removing 1t of CO₂ from the atmosphere
- relatively little energy is required to produce the semi-finished product

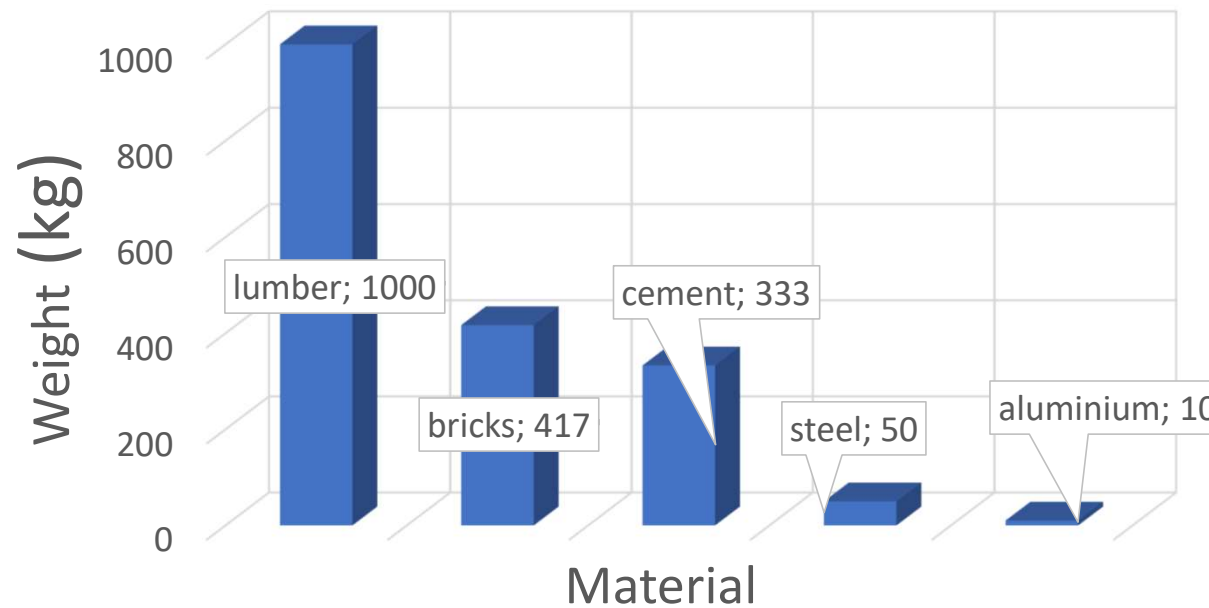


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Ecological Aspects of Wood Processing

WEIGHT COMPARISON OF MATERIALS WITH THE SAME ENERGY CONSUMPTION



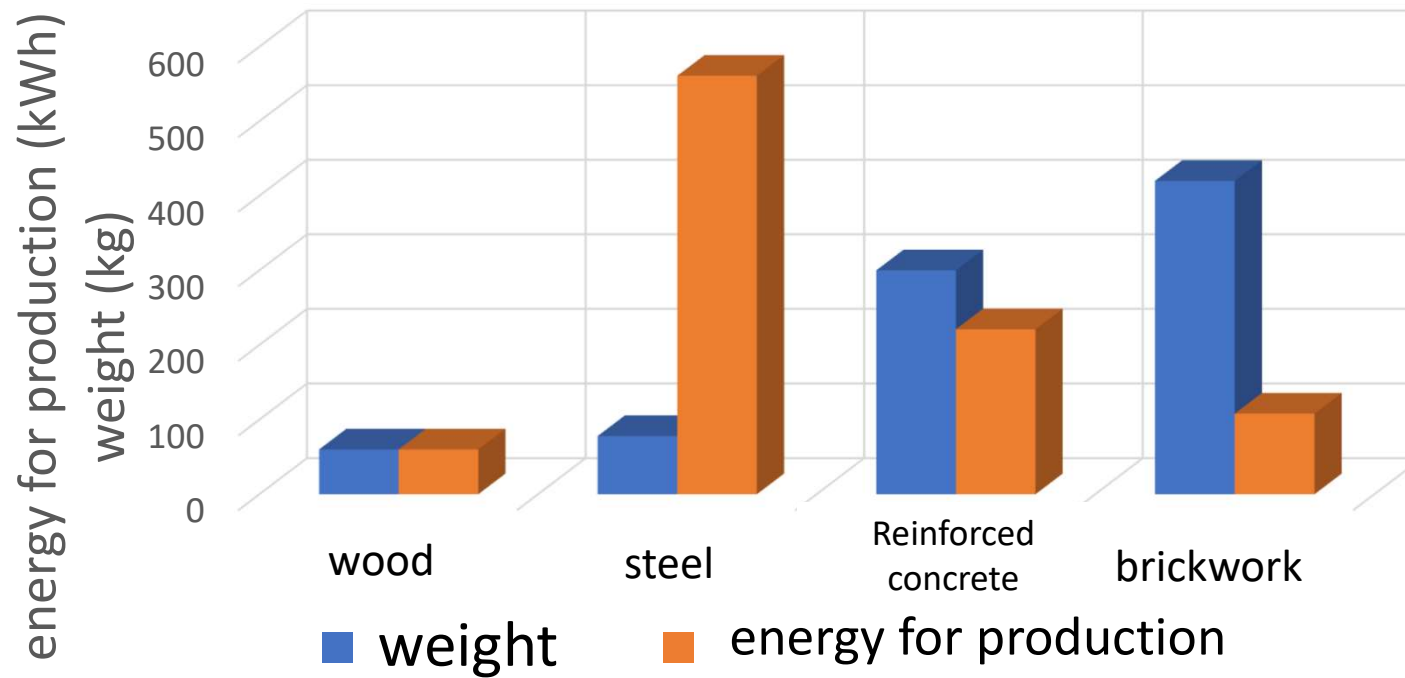


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Ecological Aspects of Wood Processing

PRIMARY ENERGY CONSUMPTION FOR A 3 m LONG
BEAM





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Ecological Aspects of Wood Processing

An important condition for the ecological LCA of a product is its disposal

- By biological decomposition
- Energy use
- By recycling



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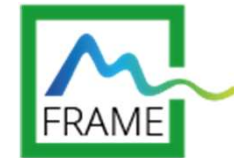


Ecological Aspects of Wood Processing

ENERGY BALANCE DURING COMBUSTION			
Energy (MJ/m ³)	Agglomerated boards	Glued construction	Wooden beams
Energy content	8 500	8 500	8 500
Energy for production	6 700	5 750	6 300
Energy gain	1 800	2 750	2 200



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Ecological Aspects of Wood Processing

Summary at the end

- renewable raw material
- extremely low energy requirements for raw material preparation and production
- binds carbon and CO₂
- energy utilization of waste during production
- environmentally friendly disposal



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THANKS FOR YOUR ATTENTION