

Life cycle of wood building products

sustainable resources

Wood products are produced from trees, a naturally renewable resource. More wood is grown each year in the U.S. than is harvested.



responsible manufacturing

Waste is virtually eliminated when trees are used to make wood products. Bark, trims and sawdust are used as an energy source to help power wood production facilities. It takes far less energy and fossil fuels to produce wood products than to manufacture concrete and steel.



quality construction

As a building material, wood offers a unique combination of benefits, including strength, affordability, ease-of-use and environmental superiority.



long service life

The durability of wood products contributes to the long life of a home. Wood products also store carbon, reducing the amount of carbon in the atmosphere.



recycle renew

At the end of their initial service life, wood products are easily recycled for other uses. Wood contributes fewer greenhouse gas emissions than non-renewable steel and concrete.



renovation upgrade

The flexibility of wood makes renovating a home easy and affordable. Wood is builder-friendly, as well as environmentally friendly. Wood also enhances the aesthetic value of a home when used as flooring, cabinetry, furniture and molding.

Life Cycle Assessment (LCA)

LCA is an objective, science-based method to compare environmental impacts of product choices and building assemblies. Wood products have been shown to outperform other materials based on environmental measures such as embodied energy and greenhouse gas emissions. LCA systems used for analyzing the environmental impacts of building products include:

- Athena® EcoCalculator for Assemblies
- Athena® Impact Estimator for Buildings
- Building for Environmental and Economic Sustainability – BEES®

Certification and Carbon Storage

Initially targeted to combat deforestation of tropical forests, certifying wood products and fiber sourcing systems have become popular tools for forest products companies to promote their social responsibility, environmental stewardship and the sustainability of forest products. In addition to certified wood products, the sustainability of U.S. forests is demonstrated by the fact that its forests cover approximately the same amount of land as they did 100 years ago.

Wood products are the only major building products that have third-party certification in place to verify their origination from sustainably managed resources.

Major Forest Certification Programs

- American Tree Farm System (ATFS)
- Sustainable Forestry Initiative (SFI)
- Forest Stewardship Council (FSC)
- Programme for the Endorsement of Forest Certification (PEFC)

Certification Types

- **Forest Management** – certifies that the forest area is being sustainably managed according to standard requirements
- **Fiber Sourcing** – certifies the fiber sourcing systems for sourcing from sustainable sources
- **Chain of Custody (CoC)** – recordkeeping process to trace raw material from the forest to the finished product

Wood products help reduce CO₂ emissions.

Wood is the responsible choice for building professionals. Why? Because wood products require less energy to manufacture – meaning fewer greenhouse gases like CO₂. And trees use CO₂ to grow, changing greenhouse gases into the building blocks we know as wood. That's why wood products are increasingly being recognized as tools to combat climate change.

How Does Wood Reduce Carbon?

