



SOUTHERN YELLOW PINE: THE SUSTAINABLE BUILDING SOLUTION



www.americansoftwoods.com

THE LOW CARBON SOLUTION

There is no better way to build low carbon homes than with sustainably produced wood.

Every cubic metre used instead of other building materials saves between 0.7 and 1.1 tonnes of carbon dioxide (CO₂).¹

Building a typical three bedroom detached house produces about 20 tonnes of CO₂. Using timber frame can save as much as three tonnes of CO₂. When you add timber cladding, windows, doors and floors, that saving can rise to over 17 tonnes, giving a carbon footprint for the building of less than three tonnes of CO₂.²

Forests are carbon sinks

Second only to the oceans, our forests are the world's most important carbon sinks. Each tree absorbs around one tonne of carbon dioxide and produces around three-quarters of a tonne of oxygen for every cubic metre's growth.¹



Managed forests are more efficient carbon sinks

Immature trees grow fast and absorb CO₂ efficiently. As they mature, their rate of growth and CO₂ absorption slows, until eventually the tree dies, rots and releases the carbon it has stored into the atmosphere. In managed forests, mature trees are harvested and replaced with vigorous young trees. A good market for wood products provides the financial incentive for forest owners to invest for the future.



The carbon benefit can be extended

Different wood products have different life spans, but the durability of wood means timber used in construction can last a lifetime and longer. At the end of their life, wood products can be recycled or used as biomass fuel.



Wood products are carbon stores

When a tree is harvested, much of its carbon is stored in the product it has been used to make. Because the harvested tree has been replaced, the carbon stored in the wood product is a bonus, which is why wood products are often said to be 'carbon negative'. Wood products are 50% carbon by weight.



¹ Edinburgh Centre for Carbon Management (www.eccm.com)

² Edinburgh Centre for Carbon Management, Report 196, Carbon Benefits of Timber in Construction, 2006 (www.eccm.com)

THE LOW IMPACT SOLUTION

Nowadays there is increasing recognition that we all have a responsibility to minimize our impact on the planet. This is particularly true of construction, which uses substantial amounts of raw materials and is responsible for correspondingly large amounts of waste and high levels of CO₂ emissions.

Sustainably produced wood helps to reduce construction impacts all round.

Renewable

Wood is naturally renewable. The more we use, the more we plant.



Low carbon

Because of the carbon sink effect of the forest, wood products are not just low carbon, they are carbon negative, even allowing for processing and transport.



Responsibly manufactured

Every element of the tree is used by the sawmill. Even the bark and sawdust are used to provide biomass energy. The process of growing, harvesting, milling and transporting wood results in less pollution than the production of comparable materials.



Reduced foundations

The lower weight of timber frame dwellings means lighter foundations and lower CO₂ emissions.



Low waste

Pre-fabricated timber frame reduces on-site wastage.



Thermally efficient

Wood's low thermal transmittance makes it an excellent material for helping to achieve today's ultra-high thermally insulated homes, reducing CO₂ emissions and energy costs throughout the life of the building.



Recyclable

Any waste wood, whether produced in the sawmill or on-site, can be recycled to be used in panel products or as biomass fuel.



Life Cycle Assessment (LCA)

LCA is an internationally established methodology that compares the cradle-to-grave environmental impacts of different building elements, taking into account all aspects of production, use and end-of-life disposal. LCA studies demonstrate the superior environmental performance of wood products. Organizations such as the Building Research Establishment (www.bre.co.uk) can undertake assessments of specific building elements.

THE RENEWABLE SOLUTION

Wood is the only mainstream building material that is naturally renewable. In the US, forests are widely recognized as stable and well-managed. Today, they cover about the same area as a century ago, and forest cover actually increased by over half a million hectares from 1990 to 2005.³

Certification

Wood is the only mainstream building material to have third-party certification in place to verify it is sourced from sustainably managed resources. Initially launched to combat tropical deforestation, certification schemes have become popular tools for forest products companies to promote social responsibility, environmental stewardship and the sustainability of forest products.

Certified Southern Yellow Pine is widely available. For further details of producers who offer certified Southern Yellow Pine, please go to www.SouthernPineGlobal.com/cert_lumb.asp

Major forest certification schemes

- American Tree Farm System (ATFS) www.treefarmssystem.org
- Sustainable Forestry Initiative (SFI) www.sfiprogram.org
- Forest Stewardship Council (FSC) www.fsc.org
- Programme for the Endorsement of Forest Certification (PEFC) www.pefc.org

There are three types of certification:

- Forest Management, which certifies that the forest area is being sustainably managed according to set requirements
- Fibre Sourcing, which certifies the sustainability of the fibre sourcing systems
- Chain of Custody (CoC), which is a record-keeping process, provides evidence of an unbroken chain from forest to product.



³ UNFAO, State of the World's Forests 2009

The content of this publication has been compiled by the Southern Forest Products Association (SFPA) as a service to buyers, users and specifiers of wood building materials. The SFPA is a non-profit trade promotional group supported by Southern Pine timber manufacturers. One of the primary missions of the council is to provide information to those interested in the industry's products. SFPA's global representatives are ready to assist with product or technical information. Find regional contacts at www.SouthernPineGlobal.com

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