

WOOD

the
SUSTAINABLE RESOURCE

THE BEAUTY OF WOOD

Wood is highly prized by architects, engineers, sculptors and woodworkers because it provides them with opportunities to maximise creative expression. Each species of tree provide timber with different characteristics of colour, texture and grain. Colour varies from the lightest pale woods of holly and

sycamore, through the greyish brown of oak and walnut, to the red of the alder and the yew, through every darker shade of brown right to the black of ebony. Different lights throw different reflections on wood, while the texture and grain provide a sensory experience.



THE AGE OF WOOD

Timber is the oldest construction material, first used in the primeval forest as rough shelters and huts. In early civilisation wood was used to make spears, tools, axe handles, huts and boats. The most accurate way to find the age of most trees is to count

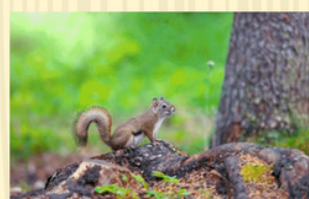
the number of rings visible when the trunk is cut horizontally or from a core sample taken from the tree trunk. Each ring corresponds to one year of growth. Dendrochronology is the science of determining the age of trees.



THE RENEWABILITY OF WOOD

Wood is a renewable natural resource, unlike gas, oil and minerals, especially when it comes from sustainably managed forests. These forests are managed in a way that ensures that when trees are harvested, they are replanted carefully avoiding damage to

surrounding eco-systems and wildlife. Far less energy used in harvesting and processing wood than in the manufacture of other building materials such as concrete and steel.



THE VERSATILITY OF WOOD

There is no waste in timber production. After a log is sawn for construction, joinery, veneering, fencing and other uses, the remainder can be processed into paper, energy efficient fuel and horticultural products. Small logs,

wood chips and sawdust are processed into panel boards which in turn are manufactured into products as diverse as door mouldings, furniture, shop fronts and pool tables.



THE DURABILITY OF WOOD

Timber can last for a very long time both internally and outdoors, particularly if it is treated with stains or coatings. While wood indeed has the ability to absorb and release moisture, it can, with proper treatment and correct design, last in

various climates including those with high humidity, frequent sun, and heavy rain. Ornaments carved from bog oak or deal are made from timbers preserved in our bogs for perhaps 5000 years.



THE SUSTAINABILITY OF WOOD

As trees grow their leaves take in carbon from the carbon dioxide in the air and store it as a major component of their timber. This storing of carbon is called carbon sequestration. When that timber is used in construction or for furniture for example, that carbon can remain

sequestered for a very long time. The effectiveness of trees in mitigating climate change begins therefore in the forest. So, the more forests we have, the greater the role that trees can play in removing carbon dioxide from the atmosphere and slowing down climate change.



THE SOUND OF WOOD

Wood is renowned for its acoustic qualities. Sitka spruce is used for making guitars, violins and harps while eleven woods are used for making classic grand pianos: spruce, hornbeam, beach, mahogany, larch, boxwood, maple, poplar, walnut, baya and ebony.

The acoustic qualities of wood are also valued in uses such as timber acoustic fencing, often referred to as noise barriers. These structures are designed to absorb the level of noise from motorway traffic. They are aesthetically pleasing, sustainable and long-lasting noise reducers.



THE STRENGTH OF WOOD

Wood has been an important construction material for centuries on account of its strength. Today, it is possible to engineer it to provide even tougher qualities. Such engineered

wood includes glulam (layers of laminated wood), which is used for glasshouse supports and in producing long spans for sports' arenas and concert halls.

