

Timber, a sustainable material: from managed forests to cellulose walls certified under Passivhaus

Timber is natural, strong and versatile, and when it comes from managed forests it becomes one of the lowest-impact building materials available. At PAPIK Group it is the foundation of the Eskimohaus biopassive houses.

Timber is one of the few building materials that combines natural origin, structural strength and industrial versatility. The same raw material feeds very different sectors: furniture, biomass, construction and by-products such as paper and cardboard. That flexibility, together with the way it is produced, explains why timber holds a central place in sustainable construction.

Managed forests, a growing forest cover

The timber that reaches a building site does not come from the indiscriminate felling of natural forests, but from areas managed with a productive purpose. In these forests one tree is planted for every tree cut, so the forest cover does not decline. Across Europe, the orderly production of timber has in fact contributed to the opposite effect: wooded area is growing.

In Catalonia this industry is still only modestly established. Bodies such as Incafust work to promote it locally and to bring the sector closer to a model already fully consolidated in other northern European countries.

A waste-free chain

Timber processing uses almost all of the raw material. When pieces are cut, the offcuts are reused to make smaller components, and the shavings gain a second life as chipboard or as biomass fuel. The result is a value chain in which what is left over from one process becomes the raw material for another.

A material that captures CO2

As they grow, trees absorb carbon dioxide. Using timber as a building material extends that capture inside the building, so each house helps improve the environmental balance rather than worsen it. This is the logic that allows PAPIK Group to speak of biopassive houses: sustainable, efficient, comfortable and natural, with high interior comfort and minimal energy use.

From tree to Passivhaus wall

The structure of our houses is injected with cellulose, a timber derivative that achieves very high insulation within a reduced thickness. The result is thin yet highly insulating walls, the technical basis that allows the homes to be certified to the Passivhaus standard, the most demanding on the market for efficiency, build quality and interior comfort. This way of building is the core of the Eskimohaus construction system, and it connects directly with the wider reflection on the wood revolution in contemporary building.

Building with managed timber is not an aesthetic concession but a technical decision: less energy, less waste and a material that keeps capturing carbon long after it has left the forest.