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Mostra internazionale sull'impiego del legno nell'edilizia
International exhibition on the use of wood in building



REDISCOVERING WOODEN ARCHITECTURE IN ITALY

GLULAM AND SUSTAINABILITY: SHARED IDEAS FOR A SAFER FUTURE.

Glued laminated timber (or “glulam”) is an engineered wood product. It is predominantly made of natural wood and it offers all of the latter’s qualities, including an exceptional strength-weight ratio and good behaviour in the event of fire, as rather than collapsing it burns in a controlled manner, thus allowing people to be evacuated safely. At the same time, it is a new product that is manufactured on an industrial scale in technological pressure bonding processes that limit the inherent shortcomings of solid wood.

In terms of sustainability, wood is the only material to guarantee a negative balance of carbon dioxide emissions in its life cycle.

The outstanding load capacities of glulam beams are even better than those of their solid wood counterparts. They also have greater potential in terms of size and functions. For example, it would not be possible to make an arch with solid wood. Glulam beams are gaining prominence as alternative, innovative load-bearing elements in the construction industry thanks to their extraordinarily high performance, especially considering the fact that they have superb load capacities for such light materials. When it comes to reliability and safety, not even steel or reinforced concrete can beat glulam. For example, the latter’s earthquake resistance properties are four times greater than those of concrete and steel.

The Italian National Sustainable Architecture Institute has identified glulam as an exceptional material for green, sustainable architecture due to its production techniques, environmental credentials and eco-friendliness. Glulam elements provide greater structural strength than solid wood elements of the same size and they are made with production techniques that favour native species of trees from certified, sustainably managed forests.

In terms of primary energy, choosing to construct a building with wood rather than concrete gives potential savings of between 20% and 80% on a number of significant costs, due to the use of lighter materials and the much faster assembly and overall construction times.

From edilia2000.it

