

Recycled denim case study

Ref: by Damir Beciri, 7th October 2009



<http://www.robaid.com/tech/green-architecture-california-academy-of-sciences.htm>

Architect Renzo Piano achieved a design for the Living Roof for the California Academy of Sciences in Golden Gate Park, San Francisco. It is a crowning achievement of sustainable architecture. It received the LEED (Leadership in Energy and Environmental Design) platinum award.

The Academy will house 38,000 live animals. It is currently the only institution in the world to feature an aquarium, a natural history museum, a living rainforest, a planetarium, and world-class research and education programs – all housed under a 2.5 acre green roof.

Not only did the green rooftop canopy visually connect the building to the park landscape, but it also provided significant gains in heating and cooling efficiency.

Besides the soil insulation, the building has a cotton batting made from recycled blue jeans. This material provides an organic alternative to formaldehyde-laden insulation materials.

Recycled denim insulation holds more heat and absorbs sound better than spun fiberglass insulation. It is also safer to handle.

Even when denim insulation is treated with fire retardants and fungicides to prevent mildew, it is still easier to work with and doesn't require installers to wear protective clothing or respirators