

## How does the building look like?

The building (at Ecover, we still call it 'the new factory') is oriented to follow the movement of the sun from east to west, ensuring maximal daylight and limiting the need for artificial light.



**The weight bearing construction** (inside height 13 m) consists solely of laminated European pine rafters treated with borax salts to increase fire resistance. Pine is not a particularly precious type of wood, but the technique of gluing it together under pressure gives the structure a strength and load bearing capacity that can normally only be achieved with precious, slow-growing timber.

**The outside walls** and inside partitions consist of masonry built with a separate type of brick, the **Porro+**, made from a mixture of clay, wood pulp and coal fines. The baking of this stone requires less energy and the outcome is a light, porous material with good thermal insulation. The stone nevertheless needs a protective coating, in our case a rendering of trass lime mixed with straw.



**The flooring** is made of concrete, which was necessary in view of heavy round-the-clock internal transport with forklift trucks carrying away all the finished products and delivering materials and packaging to the appropriate area in the factory. In 2005 over 17.000 tons of goods were produced. If we consider all the transport movements, we can assume that the total load transported internally amounted to three times more.



**The roof** is a green roof, built from a layer of sealant, an insulation layer of mineral perlite and an external layer which is a substrate with plant cover comprising various types of Sedum. Sedum is a type of plant that used to grow on most roofs (it used to be called 'Thunder beard') and that is capable of surviving prolonged periods of drought or great heat. This makes it ideal for the roof. Overall, the roof provides excellent thermal and acoustic insulation in all seasons. In the factory, which is without general heating or air conditioning, the temperature never drops below 4°C and never rises above 26°C.



In the winter, any **heating** required in the factory is supplied locally by reflector heaters powered by natural gas.