



## ***ECOZIP*** - the living roof system

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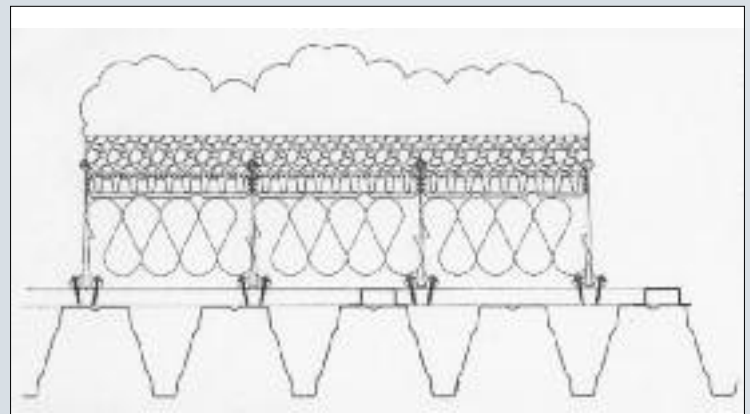
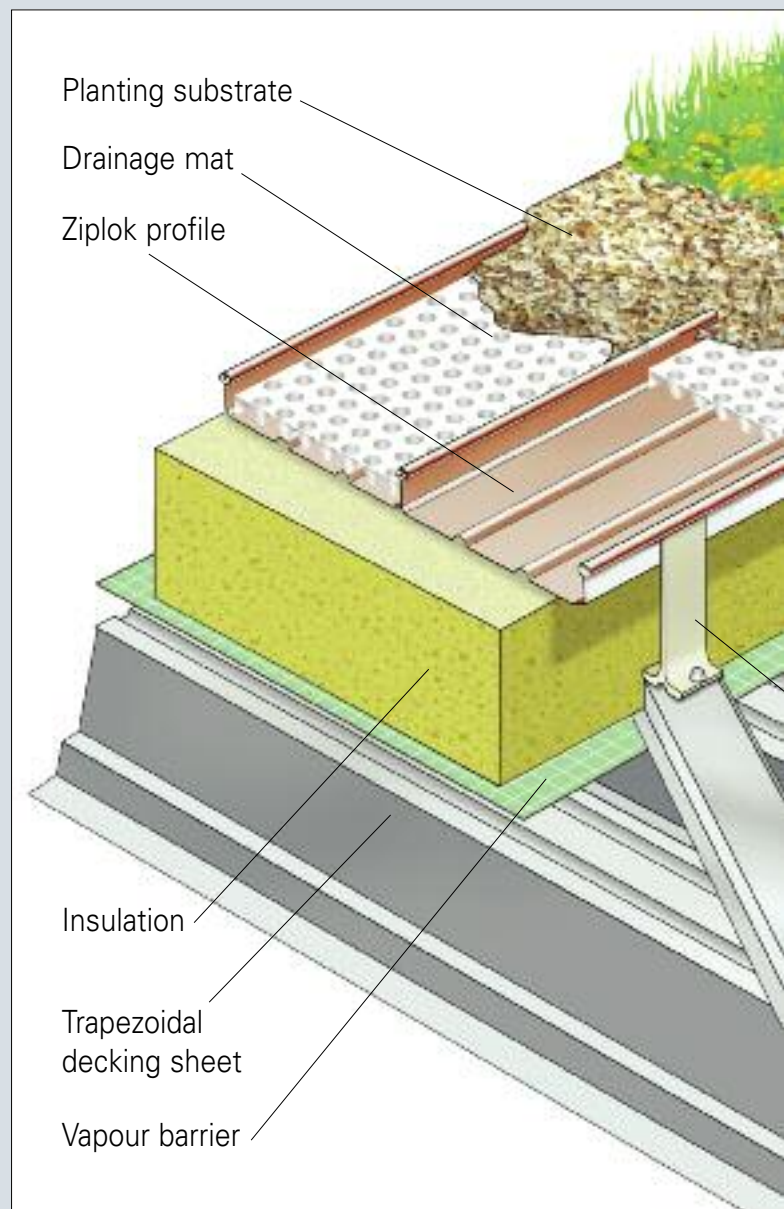
**RigiSystems' EcoZip is a complete system developed to allow designers to incorporate roof gardens within the Ziplok standing seam structure. Rigidal supplies all components of the system up to the drainage mat, while the 'gardening', consisting of the growing substrate and the vegetation layer, is carried out by one of Rigidal's chosen partners.**

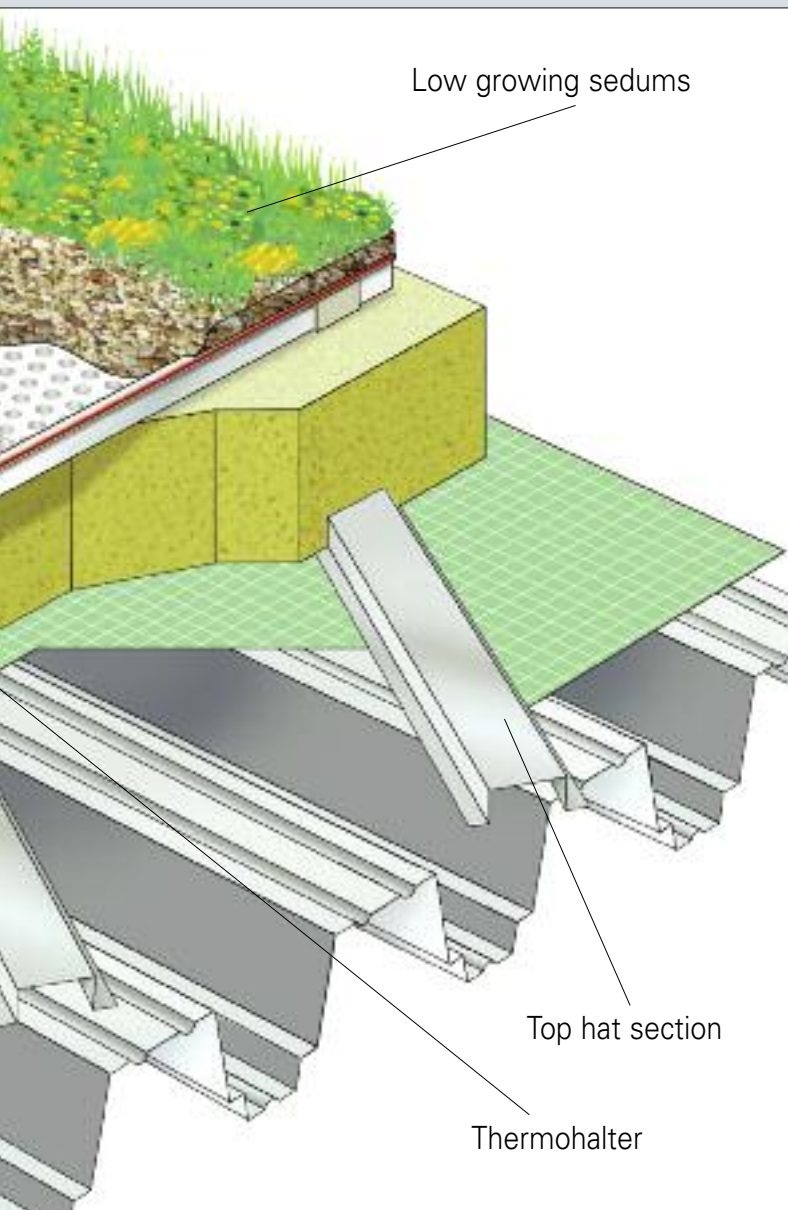
The integrity of the roof is therefore ensured and there is no effect on any of the standard warranties - indeed EcoZip has many performance benefits over a standard roof in addition to the many environmental benefits.



## Features and benefits

- Green layer removes pollutants from the atmosphere while increasing oxygen and reducing carbon dioxide levels.
- Improvement in acoustic insulation, both internal and external
- Improvement in thermal insulation, both in winter and in summer
- Water retention gives time delayed discharge of excess water, reducing stress on drainage systems
- Large proportion of stored rainwater is returned to the natural cycle
- Thermal and mechanical protection against temperature, radiation and atmospheric influences
- Minimal maintenance requirements





## Construction

Build up of the roof takes place as in a standard Ziplok standing seam roof, with structural steel deck or liner tray as appropriate. A vapour control layer, consisting of Talfoil or Aluseal vapour barrier is laid over the trapezoidal sheet to protect against condensation from above and below. Top hat sections are then laid at 45° angles across the vapour barrier, typically at 1.5m centres. Thermohalters are attached in the normal way, with the appropriate thickness of mineral fibre insulation to achieve the desired U value, before attachment of the Ziplok 300 or 400 profile top sheet in plain mill finish.

Drainage mats are simply rolled into position between the upstands of the Ziplok profiles. The mats allow excess water to drain away while retaining sufficient water to sustain plant growth. Anti slip bars should be placed at intervals which aid in keeping the drainage mat in place and in preventing slippage of the growing substrate. Typical frequencies are:

Roof pitch up to 5° - every 3m

5° up to 10° - every 2m

10° up to 15° - every 1m.

The growing medium, typically an inert, lightweight, pH neutral substrate is laid directly onto the drainage mat before planting with sedums. There are a number of sedums which make appropriate planting of the EcoZip. Their hardy, free flowering, sun-loving nature makes them a natural choice for this specialised application, and they can also be combined with ornamental grasses to provide a true roof garden effect.





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