

The Build-up of a Green Roof

The range of ZinCo systems ensures that the right build-up can be provided to meet the requirements of any landscape option, including:

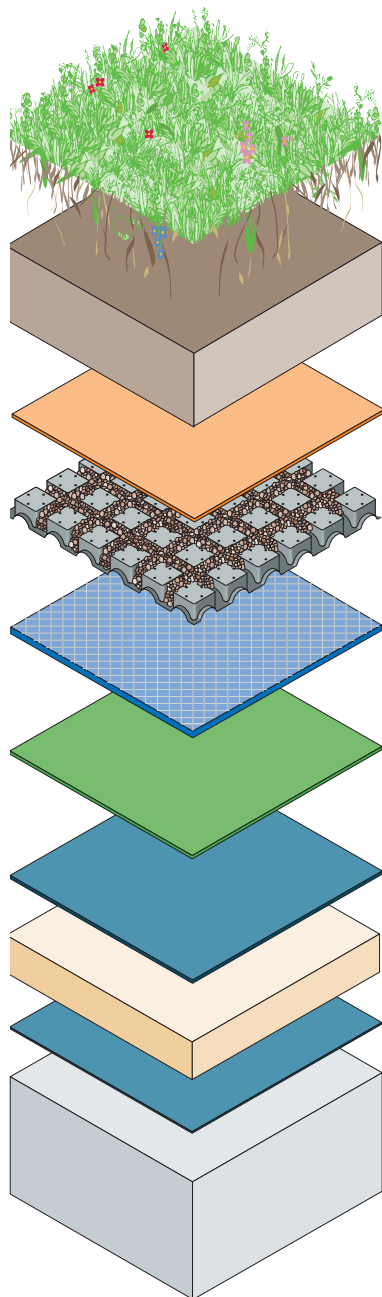
- Extensive and intensive landscapes
- Sloping and flat roofs
- Ponds, paving and play areas

- Vehicle access onto the roof
- Landscaping with additional thermal insulation

At the heart of the ZinCo green roof system is one of the patented drainage elements (Floradrain®, Floratherm® or Floraset) with its systems of channels on the underside, ensuring drainage of

water, even with dense root growth. The profiled troughs in the drainage elements retain water, even on a sloping roof, and have strategically placed holes to ensure the roots receive the necessary aeration and allow the water to diffuse.

Fig 3: Elements of a ZinCo Green Roof



Carefully selected plants - for extensive, low maintenance landscaping, suitable plants include mainly drought resistant, self-regenerating sedum and rockery varieties. Plants for intensive landscaping such as roof gardens can be supplied by garden centres and nurseries.

Growing medium - must have a well balanced structure and low weight. The pH values, nutrients, degree of porosity and vapour permeability must be suitable. The type and thickness of the substrate ultimately determine the plant growth as well as the structural load imposed on the roof structure. The growing medium should be independent of and in addition to any plant/sedum vegetation mats.

Filter membrane - to prevent fine particles being washed out of the substrate and therefore maintaining the efficiency of the drainage layer.

Drainage element - retains water in the profiled troughs, even on sloping roofs. Excess water drains away through the channels between the troughs. Strategically located holes provide the necessary aeration and ensure that moisture from the moisture mat diffuses up through the planting soil.

Moisture mat - made of non-rotting fibre to retain moisture and nutrients as well as providing mechanical protection to the root barrier and waterproof membrane. Not required in inverted roof assemblies.

Root barrier - prevents roots from affecting the waterproofing. The type, thickness and method of installation depend on the nature of the landscape planned and the shape and slope of the roof. Not required over root resistant membranes.

Waterproof membrane - Alumasc recommend the use of Derbigum or Hydrotech as the waterproofing membrane under green roofs due to their extreme durability and longevity.

Thermal insulation - situated below the waterproof membrane to form a warm roof construction. Inverted roof assemblies may also be accommodated, especially where Hydrotech is the waterproof membrane.

Vapour control - layer situated between the structural deck and insulation to prevent the formation of condensation.

Structural roof deck - must be designed to support the weight of the green roof and any live loads.