



## ARCHITEK ASSURED GREEN ROOFS

### water retention + passive irrigation blue / green roof

High performance water retention and passive irrigation system build-up. Allowing for high levels of stormwater retention and reduction of water use for irrigation.

Blue / green roof that usually uses sedums or shallow root grasses. The soil or grow media/substrate layer is usually shallower than 150 mm or 6". The entire system has a saturated maximum weight of 183 l/m<sup>2</sup> as it may hold up to 116 liters of rain water per square meter.

#### KEY FEATURES:

**Stormwater Management:** Reduces the total volume and the rate of runoff, particularly during peak storm events.

**Cost savings:** Doubles roof life by protecting membrane from mechanical damage and UV exposure.

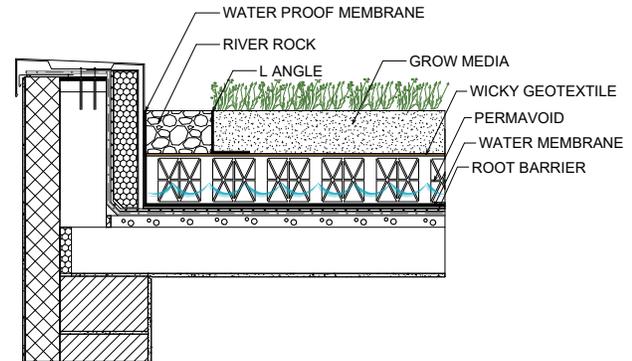
**Improved Performance:** Increased thermal insulation.

**Reduced Heat Island:** Moderates temperature so rooftop equipment (including solar PV) operates more efficiently.

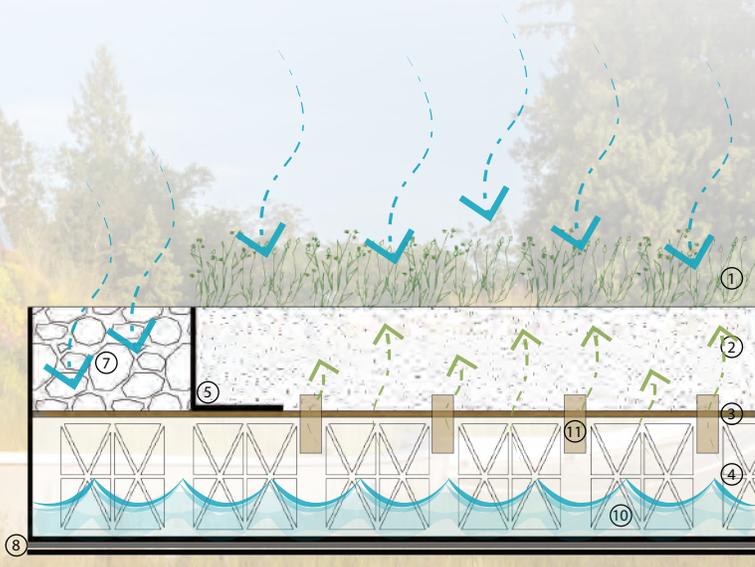
**Increased Value:** Enhances views, creates enjoyable outdoor space and provides habitat for nature.

**Locally Sourced Materials:** Architek uses mostly locally sourced materials.

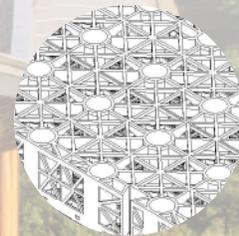
**Irrigation Water Saving:** Storm water storage and passive irrigation allow reduction in water usage for gardening.



Pre-grown vegetation mat.



- ① EXTENSIVE VEGETATION
- ② GROWN MEDIA
- ③ WICKY GEOTEXTILE
- ④ PERMAVOID
- ⑤ L ANGLE
- ⑥ WATERPROOFING MEMBRANE
- ⑦ RIVER ROCK
- ⑧ ROOT BARRIER
- ⑨ ROOF MEMBRANE
- ⑩ RAIN WATER STORAGE
- ⑪ WICKING CYLINDERS



Permavoid 85



Thickness of system (cm):	25 cm (10")
Dry Weight (kg/sqm):	67kg/sqm (14lbs/sq.ft.)
Saturated Weight (kg/sqm):	183kg/sqm (38lbs/sq.ft.)
Vegetation (types):	Mix of Sedums / Plugs / Perennials
Water Retention capacity (L/sqm):	116 liters / sqm

COMPONENTS:



**Special plants for extensive green roofs.** Sedums, plugs and perennials. Sedum size: 12" x 24" (different mixes). A coconut fiber base assures effective rooting of plants to the underlying growth medium and holds the tile together for easy installation.



**Architek Extensive Mix.** the proper blend of organic matter and aggregates to an FLL standard. The growing media ensures the nutrients needed for the growth of plants, serves as a support to the roots, thus providing the ground of the growth of the vegetation. It includes mostly minerals, mixtures with proper air content, and durable good water permeability and stable structure.

Available in bags and bulks.



**Wicky Geotextile.** Geotextile filter layer with wicking threads to allow for passive irrigation and soil retention.



**Permavoid 85 / 150.**

Board size (mm):  
Rainwater retention capacity with wicking cylinders (l/sqm):

Permavoid 85	Permavoid 150
708x354x85mm	708x354x150mm
116 l/sqm	180 l/sqm



**Water Membrane.** This product protects the roof insulation boards against damage during the installation and future maintenance work serving as a protecting layer. Installation on rigid insulation will not require this layer.



**Root Barrier / Water Membrane.** Water tight membrane used in blue roof with permavoid system. Root resistant and vapour control layer made of 20-40 mm thick elastic polyethylene regenerate. Applicable as a vapour control layer and can be used as a root resistant layer on green roofs when lied down with a 1.0 m overlapping. Dimensions: 4x25 m (WxL); Roll width: 1 m; wrapping: 100 m2/roll; colour: black.