

The Control of Water in a Green Roof

Water Storage

Providing moisture to the roots is essential to maintain good healthy plants on a green roof.

Much of the moisture is supplied by natural rainfall, which is collected and stored by the layers in a ZinCo green roof.

The drainage layer plays an essential part in storing rainwater that filters through the growing medium. Once the troughs in the drainage layer are full, excess water overflows, to be soaked up by the moisture mat. Only water that cannot be absorbed by the moisture mat drains from the roof down the roof outlets.

In dry periods, stored water gradually diffuses up into the growing medium for uptake by the plant's roots.

Rainwater Harvesting

Excess rainwater run-off can be collected by rainwater diverters, and used for non-potable purposes such as lavatory flushing (which represents approximately 60% of total water consumption in a typical commercial office environment), and landscape irrigation.

Any water which is not collected is treated as surface water run-off.

Irrigation

There should always be easy access to a water point for irrigation purposes, especially for intensive roof gardens.

An automatic system is the ideal solution as it provides a constant water supply. The ZinCo Sub Landscape Irrigation system is simple and reduces the water lost through evaporation which occurs during surface applied irrigation by up to 30%. See page 48 for further details.

Fig 8: How a green roof stores water

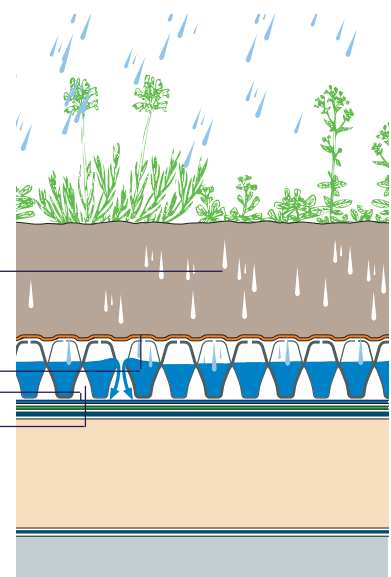


Fig 9: How a green roof releases moisture

