



## The benefits of green roofs

Living roofs can provide fresh areas for the local ecology to thrive and, with continued urban expansion absorbing the habitats of our indigenous plants, insect and birds; landscaping flat roofs offers an effective and practical use of space, whilst helping to sustain and replace lost habitats in the process.

### Ecological

- Creating a natural habitat for flora and fauna – a living roof can create a local ecology in which the vegetation will establish and provide a home for smaller elements of wildlife as well as insects and invertebrates.
- Aiding biodiversity – the provision of a healthy habitat in a place that could otherwise be empty provides support for the natural colonisation of locally arising plants, birds and small animals, encouraging a wider spread of species in the area. We are a member of the RHS plants for pollinators scheme.



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### Environmental

- Storm water management – soft landscaping helps to reduce the risk of flood by retaining large proportions of annual rainfall and reducing rainwater run-off. This is particularly useful within Sustainable Urban Drainage (SUDs) schemes. The volume of water retained is dependent upon the depth of substrate utilised in the landscaping, the greater the depth, the more water is held back on the roof.
- Environmental masking – this assists in blending the building into its surroundings and in part replaces the permeable land surface otherwise lost to the construction.
- Improved air quality – the vegetation assists in reducing both gaseous pollutants and dust particles by removing a proportion of them from the immediate environment. Additionally, the natural evaporation of water from the plants and soil helps to cool and humidify the air, so lowering the ambient temperature and reducing the heat island effect.
- Photosynthesis - This is part of a plants' living process whereby they actively convert carbon dioxide to oxygen. Our sedum blanket absorbs approximately 187.5g of carbon per sqm each year
- Urban heat island effect is reduced - this is the difference in temperature between urban areas and the surrounding countryside. In large cities, this can be as much as 5°. This happens because large building surfaces will both reflect and radiate solar energy within a built up area, which does not dissipate fully overnight. The substrate of a green roof will absorb some of this heat and the natural evaporation of water from both the plants and the soil helps to cool and humidify the air, thus lowering the ambient temperature.