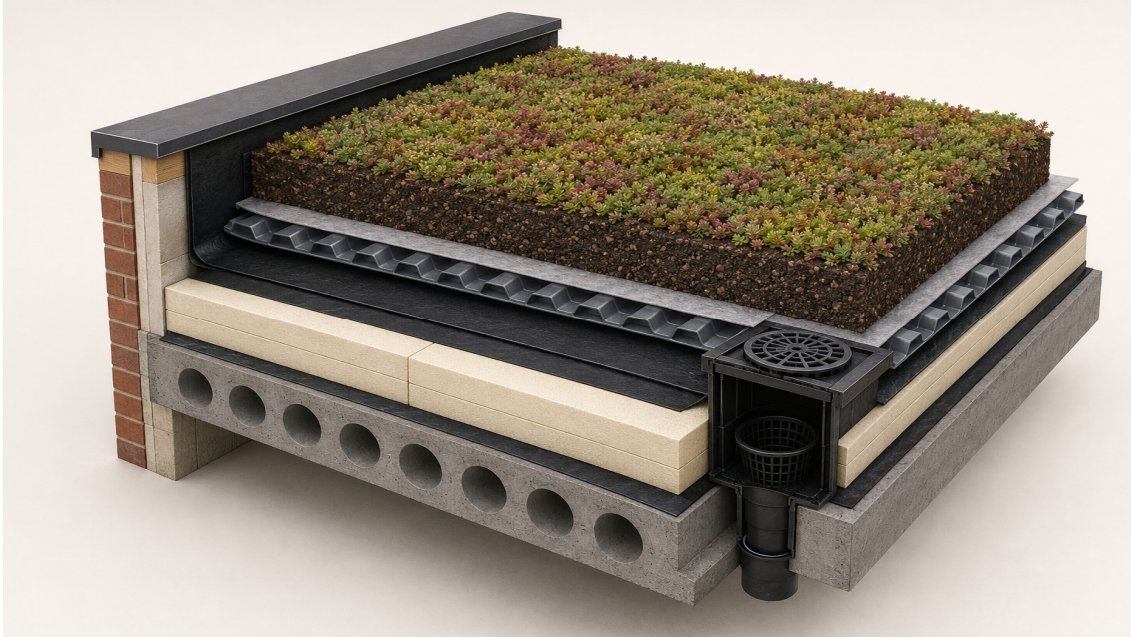


HOUSEPLANSDIRECT TECHNICAL GUIDES

SEDUM ROOFS EXPLAINED

A complete guide to extensive green-roof design, construction and care



Extensive sedum warm roof with its vegetation, drainage, waterproofing and structure exposed.

NINE-PART PUBLICATION EDITION

Principles · Systems · Water · Anatomy · Structure · Waterproofing · Fire · Maintenance

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Contents

Part	Subject
Part 1	Introduction: What Is a Sedum Roof?
Part 2	Systems and Selection
Part 3	Water, Vegetation and Performance
Part 4	Anatomy and Critical Junctions
Part 5	Structure, Wind, Drainage and Fire Design
Part 6	Waterproofing, Installation and Maintenance
Part 7	Building Regulations and Site Safety
Part 8	Common Design and Construction Defects
Part 9	Inspection Checklist, FAQs, Glossary and Further Reading

About this guide

This guide explains extensive sedum roofs for low-rise housing in England. It is intended for clients, designers and site teams who need to understand system selection, saturated loading, wind, falls and outlets, waterproofing and root resistance, drainage, substrate, vegetation, fire precautions, access and maintenance. Structural calculations, the waterproofing and green-roof system design, current certification, planning conditions and Building Control requirements always take precedence.

SCOPE Sedum roofs require coordinated structural, waterproofing, drainage, fire, horticultural and maintenance design. Approved calculations, system details, certification, warranties, planning conditions and Building Control decisions take precedence. Figures are explanatory and must not be scaled.

Part 1 – Introduction: What Is a Sedum Roof?

A living extensive roof built above the primary waterproofing system

A sedum roof supports low-growing, drought-tolerant planting in a shallow engineered substrate over filter, drainage, protection and root-resistant waterproofing layers. It is usually an extensive green roof intended for limited access rather than regular occupation. The vegetation is the visible finish, but the waterproofing remains the primary weatherproof layer and the roof structure must support the full saturated build-up.

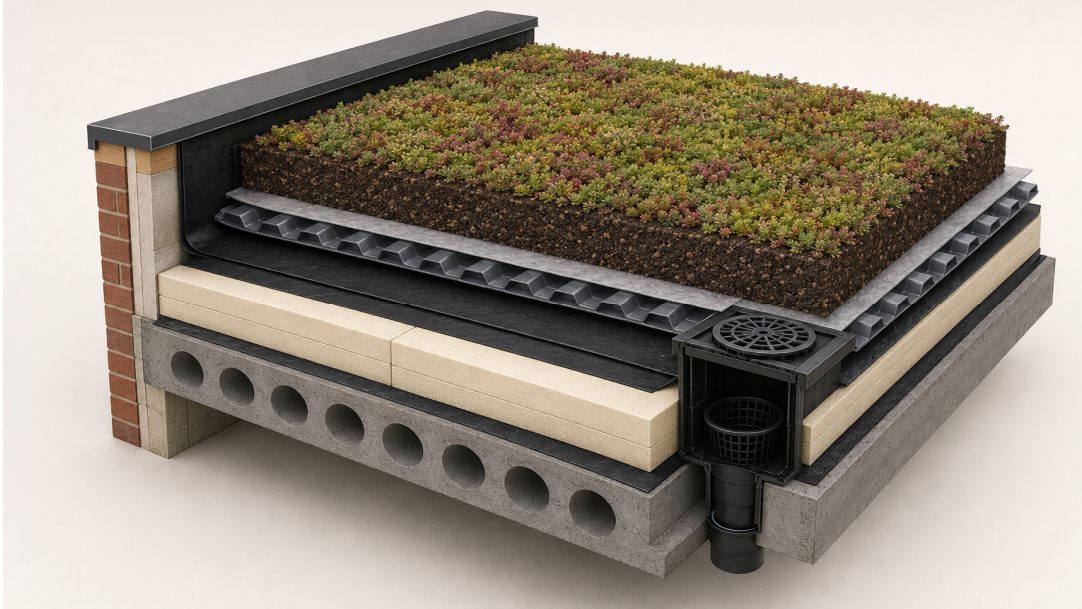


Figure 1 – Principal layers and outlet of a modern extensive sedum roof.

1.1 Principal components

Component	Primary role
Vegetation	Provides the living cover, seasonal interest and habitat.
Engineered substrate	Stores water and air, anchors roots and controls saturated weight.
Filter and drainage-retention	Retain fines, temporarily store water and route excess to outlets.
Root-resistant waterproofing	Forms the primary weatherproof and root-resistant roof layer.
Warm roof and structure	Control heat and moisture and carry all permanent and imposed loads.

1.2 Benefits and limitations

- Creates habitat and seasonal visual interest while protecting the roof finish from direct sunlight and some temperature extremes.
- Retains and delays part of a rainfall event, contributing to a coordinated drainage strategy rather than eliminating discharge.
- Can improve amenity and support planning or biodiversity objectives where the selected planting suits exposure and maintenance.
- Adds permanent and variable load, requires dependable waterproofing and drainage, and will decline if irrigation, nutrition, weeding and access are ignored.