



Triton/Isola Platon: Typical Sedum Roof Build Up: (Overview)

Introduction:

Sedum roofs are an extensive form of green or “living roof”. They comprise a build of several layers from the primary roof waterproofing membrane to the sedum matt or blanket at the top:

Sedum Mat
Roof Soil/Growing Medium
Geotextile Filter Fleece
Isola De 25 Drainage and Reservoir Layer
Separation Layer/Root Barrier
(Insulation)
Primary Waterproof Membrane

1. Sedum Mat:

These are generally made up of a coir backed polypropylene mesh, with crushed lava rock and soil growing medium. They are pre seeded and grown with a variety of sedums such as: Lydium, Album, Reflexum, Sexangulare, Spurium, and Hybrium as standard.

They are supplied in 2m x 1m blankets (mats), each mat/blankets approxiamate saturated weight is 25kg per square meter.

2. Roof Soil/Growing Medium:

Although sedum mats have an element of growing medium/soil, to ensure greater longevity of the green roof it is beneficial to include approx 40-50mm of growing medium or roof soil. Typically this is crushed brick and up to 40% organic matter. Alternatively a lightweight roof soil can be used, typically 30% sandy loam, 40% bacer hydroscopic flakes and 30% compost.

Saturated weight typically 25-30kg per square meter.

3. Geotextile Filter Fleece:

This is a polypropylene mesh fabric which is designed to allow the excess rainwater to filter through whilst retaining the growing medium/roof soil in its desired location. This is generally supplied in rolls 1m x 50m or 2m x 50m, and weighs 110 grams per square meter.

4. Platon De25 Drainage and Reservoir Layer:

Primarily for use on flat or shallow pitched roofs PLATON DE25 is made from high density polyethylene, is rot resistant, environmentally neutral, impact, tear and abrasion resistant. The stud pattern provides both water storage and drainage in one efficient system.

Water storage ability 6.1 litres/sq m
Drainage performance 1.5 litres/sq m
Surface water permeability 0.8 litres/sq m (pressure free)
Stud height 23mm
Sheet size 2.22m x 1.33m (2.96 sqm)

5. Seperation Layer/Root Barrier:

Typically a polypropylene mesh fabric designed specifically to resist root penetration from the growing vegetation layer, ensuring protection of the underlying layers of the roof build up from root penetration.

Generally supplied in 1m or 2m x 50m rolls and weighs approx 200g/sq m.

6. Insulation:

If to be included here then should be of closed cell nature, i.e thermal performance unaffected by water, insulation type and thickness dependant on performance requirement and the insulation manufacturer should be consulted.

7. Primary Waterproofing Layer:

Any suitable roofing waterproof membrane can be used, preferably should be BBA certified and have passed FLL guidelines for use on green roofs. E.G WOLFRIN.

Primary waterproofing to be installed by appropriate contractor, and manufacturer be consulted.
In general the green roof system as described will prolong the life of the waterproofing membrane.

Typical roof loadings for the above sedum roof build up subject to variations in growing medium depth and of the individual constituent layers is approx 80 – 90kg/sq m (when saturated).

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Ref: 12/06 SEDUM ROOF