

Steep Pitched Green Roof with ZinCo Georaster®



The System Build-up "Steep Pitched Green Roof" based on the ZinCo Georaster system, as presented here, is suitable for greening roof areas with a pitch of over 25°. The Georaster® elements are 540 x 540 mm in size, 100 mm high and made of recycled polyethylene (HDPE). No tools are required to attach them to each other. The result is a stable and continuous unit.

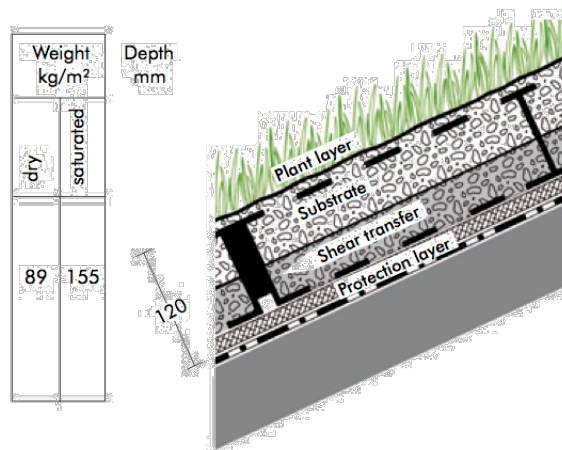
An area on which these grid elements have been installed is safe to walk on and can be filled with system substrate.

Thanks to the low volume of the Georaster® elements themselves, a relatively large space remains for root development. The choice of plants must, of course, be suited to the extreme location of a steep pitched roof, where exposure to the sun can be extreme and rainwater flows off quicker than on a flat roof.

In order to avoid gaps in the vegetation that could also be the start of erosion, irrigation should be considered as an option, even though it may only be needed in critical times. With the System Build-up

"Steep Pitched Green Roof" it is important to ensure that any occurring shear forces can be diverted to stable eaves upstands and, if necessary, additional shear barriers.

In addition to their use on pitched roofs, Georaster® elements can also be used as a reinforcement for gravel lawns, for creating pathways, when securing embankments etc.



Dense planting in line with the plant list "Pitched/Steep Pitched Green Roof"

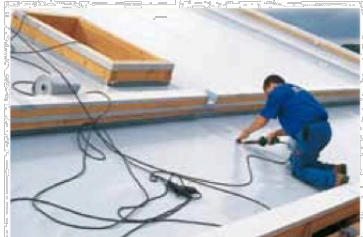
Filled with system substrate "Heather with Lavender-light" (up to approx. 10 mm over the top of the Georaster® elements)

Georaster® elements
Protection Mat WSM 150

A root-resistant waterproofing membrane is required.

Build-up height: from 120 mm
Weight, saturated : from 155 kg/m²
Water storage capacity: from 64 l/m²

Steps to Creating a Steep Pitched Green Roof:



The roof area to be greened is sealed with rolls of waterproofing membrane that have been tested for their root-resistance in line with FLL procedures.



Once the area has been covered with the Protection Mat WSM 150, the Georaster® elements are installed, starting from the bottom up.



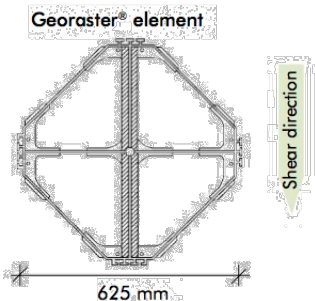
The system substrate "Heather with Lavender-light" is, e.g. delivered in a silo tanker. It is then blown onto the roof using a hose until the Georaster® elements are filled and covered up to about 10 mm over their upper edge.



Finally, the roof is densely planted with various Sedum species and other perennials.



Even after only one vegetation period the plant coverage is largely complete. The roof area in this example is drained by means of an outer-lying gutter into which the three water spouts carry any excess water.



*) Georaster® elements are generally planted with at least 28 plug plants per m². Therefore, there are at least 2 plants in each field of the element. Additional perennials for visual highlights as per the plant list "Pitched/Steep Pitched Green Roof" are possible. We recommend using vegetation mats or EcoSedum® elements for roofs of approx. 30° and upwards.

Golzari - NG Architects

United House
39-41 North Road
London N7 9DP

+44(0)20 3674 2462
info@ngarchitects.co.uk

Project No. 1902

Project Title:
Plot to rear of 268 West End Lane NW6

Drawing No. NG501

Drawing Title:
Proposed Green Roof Detail Sheets

Scale:
NTS @ A3

Rev	Date	Comment
1	01.10.19	Planning application

Notes

© This drawing remains the property of Golzari - NG Architects. It should not be reproduced in hand or electronic copies without a prior permission from Golzari - NG Architects. Drawings are for planning purpose only. These are not construction drawings.

Scale Bar 0 1 2 3 4 5 10m