

Installation Instruction

Vegetation substrate

1.) Description:

Vegetation substrates specifically developed for roof greening on roofs with an inclination between 0–45°.

2.) Delivery:

- Blown up in silo truck
- In big bag, unloading by crane
- Loosely piled, further processing with wheel loader
- Plastic sack, manually installed on small areas



3.) Area(s) of Use:

Type M: Extensive single or multi-layer green roof build-ups

Type E: Extensive green roofs with multi-layer build-ups

Type i: Intensive green roofs with multi-layer build-ups

Type R: Especially designed for intensive green roofs with lawn and multi-layer build-ups

Type U: Under the substrate, used for intensive multi-layer build-ups with high substrate layer

Type iR: Especially designed for indoor greenings with multi layer build-ups

Type SR: Compactable bearing layer for crushed aggregate lawn/parking lot lawn

Type SRD: Top layer for crushed aggregate lawn in combination with grass seeding

4.) Storage:

- All substrate loosely piled or in big bags can be temporarily stored outside without any restrictions
- Substrate in plastic sacks should be protected against UV radiation and frost

5.) Installation:

If the substrate is to be blown up on the roof, the following parameters must be taken into consideration for calculation of the substrate quantity for a specific layer height:

Sink age factor

Material loss through abrasion and crushing processes (inside pipe wall)

When calculating the loosening coefficient, the following figures (in per cent) must be taken into consideration.

| | M-light | M-heavy | E-light | E-heavy | i-light | i-heavy |
|------------------------------|---------|---------|---------|---------|---------|---------|
| Material Loss in % bis 50 m: | 4 | 4 | 5 | 4 | 5 | 4 |
| Material Loss in % bis 80 m: | 6 | 6 | 7 | 7 | 7 | 7 |
| Consolidation in %: | 12 | 12 | 15 | 15 | 20 | 20 |

Regardless of the method of application, the different substrates should be evenly installed according to the required layer height. During the installation, the corresponding squared timbers can be used as height marks. After installation, the substrate should be treadable. This can be achieved through penetrating watering after seeding. Footprints resulting from the installation procedure should be levelled before seeding.

Pitched Roof:

To ensure homogeneous load of the anti-slip system, three separate working steps are recommended:

1. Distribute the substrate uniformly over the whole roof up to half of the specified layer height.
2. Start from the ridge (highest point of the roof) and distribute the substrate up to the end height.
3. Level off the substrate from the ridge to the eave (top-bottom).

Ideally, the substrate should cover the entire anti-slip system (10 mm).

During installation, it is important to make sure that no substrate or bulk material gets behind the protection mat. Furthermore, mixing of the substrate and bulk material should be avoided (there is increased risk if this is done with a silo truck). Required special preparations: Fixation of the overlapping areas of the protection mats and filter mats, installation of the substrate in the direction of overlapping, keeping a minimum distance from the edges.

Please make sure not to exceed the maximum load capacity of the roof (water saturated weight of entire system build-up). Please check to see whether there are any specifications for the minimum dry weight, which could result from the wind suction calculations.