

# DIRECT-GREEN SOLUTIONS



We can no longer ignore the fact that the building industry must adapt to climate change. Weather extremes lead to flooding, heat problems and poorer air quality. Cities and buildings need to be made more resilient. Sempergreen offers solutions to bring back the harmony between humans and nature.

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### **GREEN ROOFS**

In urban areas, there is often little space for green areas. But our roofs offer kilometres of potential surface area. A green roof not only looks beautiful. It also offers many advantages, such as water storage, heat regulation, sound insulation, air purification and stimulation of biodiversity.

### **GREEN ROOF SYSTEMS**

With Sempergreen green roof systems, you can create a green roof in no time. Every roof is different. That is why the construction of a green roof roof depends on the variables of your roof. From lightweight system to intensive biodiversity roof and from sloping to flat roof.

A green roof structure usually consists of a drainage layer, a substrate layer and a Sempergreen vegetation blanket. Sempergreen's green roof systems are a sustainable green solution, easy to install and offer excellent performance, making them an ideal choice for both residential and commercial applications.

Sempergreen vegetation mats and cassettes are carefully cultivated and are always at least 95% overgrown on delivery. This produces a green and sustainable result. A Sempergreen vegetation mat is biodegradable.

#### **SOLAR-GREEN ROOFS**

The demand for renewable energy continues to grow. By combining solar panels with a green roof can increase efficiency by as much as 6 to 10 per cent. It also simultaneously offers all the other advantages of a green roof! For roofs with a pitch between 0 and 5 degrees we have the Solar Sedum Roof and Solar Biodiverse Roof systems developed.

### **WATER STORAGE**

Due to climate change, we increasingly face extreme precipitation events. As a result, our streets are increasingly flooded during and right after a downpour. Detention and Retention Roofs, also known as green-blue roofs, are an ideal solution to combat flooding. These systems allow rain be collected where it falls first: on the roof!



### **BENEFITS**

- · Immediate green and long-lasting result
- Low maintenance required
- Direct from the grower
- Quick and easy to grow
- Lightweight solution possible (from 35 kg/m²)
- A specially cultivated vegetation mat (depending on climate)
- Various environmental benefits such as rainwater retention, insulation, absorption of CO2 and particulate matter
- · Stimulation of biodiversity



### **SEMPERGREENWALL**

Vertical gardens or green façades are ideal for bringing more greenery into urban spaces. Only a small amount of space is needed to transform a grey area into a lush SemperGreenwall. Plants absorb harmful substances such as CO2 and particulate matter and have a cooling effect.

### **CONSTRUCTION DETAILS**

A SemperGreenwall is constructed from Flexipanels and fitted with a gutter and frame. Each SemperGreenwall is pre-cultivated in our nursery with a carefully selected mix of plants.

Every situation is unique and every climate is different. For this reason, Sempergreen has extensively tested its range of plants. This means that your green wall can be planted as desired. Even patterns and logos can be used in our planting schemes.

Sun or shade, outside or inside: Our many reference projects show that the SemperGreenwall literally grows anywhere. A web-based irrigation system in combination with a maintenance contract guarantees you a permanent green appearance.

#### **PLANT CARE SYSTEM**

The Plant Care System is the beating heart of every SemperGreenwall. The system provides each plant's roots with sufficient space to grow. The micro-irrigation system also saves nutrients and water, and protects the roots from frost and heat.

### **FLEXIPANEL**

The Flexipanel is the building block of the SemperGreenwall. The Flexipanel was designed around the plants. Unlike many other systems, Flexipanels allow full rooting: the plants can grow through the membrane and the growth medium in the Flexipanel. This allows the roots to grow much longer than green wall systems that only allow the roots to grow inside the enclosure. The result is bigger, fuller plants and more flowers.

### **BENEFITS**

- Immediate green result with pre-cultivated panels
- Can be used anywhere thanks to flexible material
- Plant care system for water and nutrients
- Lightweight solution (45kg/m²)
- · Planting according to preference and façade situation
- Various environmental benefits, including insulation, heat island reduction, absorption of CO2 and particulate matter





The SemperGreenwall has been awarded bronze Cradle to Cradle certification. With this certification, SemperGreenwall demonstrates added value for circular and healthy buildings.



## ABOUT SEMPERGREEN

As a grower and supplier of vegetation mats for green roofs and ground cover, pre-cultivated panels for green facades, Sempergreen is known worldwide. Many years of experience, countless projects and our own nurseries worldwide guarantee the best project results.

The ambition of Sempergreen is to create a a green and liveable world for today's and future generations. Green is vital for the earth and for the people and animals that live on it.

Innovative and sustainable green solutions can counteract the effects of climate change and pollution. Together we can make your sustainable building project a success!





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