



SECALFLOR PANELS – EROSION PROTECTION

Building work in natural surroundings and landscapes weakens and destroys vegetation layers. After losing its protective vegetation cover, the ground is exposed to the eroding influences of wind, sun and water and becomes barren in the long run. This process can be reversed and prevented. By using substances to prevent erosion and retain water, the consequences of construction can be halted and stable soil systems restored. SECALFLOR Panels support the rapid growth of new, closed vegetation on slanting and steep slopes and promote regeneration using microbiological conversion processes.

Soil life, even on contaminated ground, can be „revived“.

SECALFLOR PANEL BENEFITS AT A GLANCE



WATER-SAVING – UP TO 50% LESS WATER CONSUMPTION

SECALFLOR Panels serve as a natural water reservoir in the soil. Evaporation is reduced and the retained water is released to the plants over time.



100% NATURAL AND MAINTENANCE FREE

SECALFLOR Panels consist of a patented mixture of renewable raw materials as well as minerals and earth, and are completely biodegradable. Subsequent treatment on site is not necessary.



PROTECTION FROM DRIFTING OR LEACHING

In areas at risk of erosion, quickly binding the carpet of plants to the soil is decisive for success. Thanks to their rapid plant growth, SECALFLOR Panels provide immediate protection against leaching, drifting or drying out of the soil.



EASY, FAST COVERAGE THANKS TO SIMPLE APPLICATION

The structurally-stable panels are simply laid on the ground with no special training needed and can even be used in places inaccessible to machines.



USE ON HUMUS-POOR SOIL

The panels do not need a base layer of topsoil containing humus. This means that no additional earthworks are needed.



VITALISATION AND POLLUTANT DECOMPOSITION

Microorganisms are a central component of soil life and fertility. SECALFLOR Panels offer excellent growth conditions for microorganisms, which in turn actively help to break down chemical pollutants in the soil (e.g. salts, oils).



OPTIMAL GROWING CONDITIONS

The plant cover's rooting has a decisive influence on permanent growth. SECALFLOR Panels ensure quick, improved root penetration, thereby promoting a stable, flat bond with the subsoil.



20 YEARS OF EXPERIENCE MADE IN GERMANY

The SECALFLOR Panels were invented by Dietmar Schmetzdorf, our Developer, in Rheinsberg, north of Berlin. They have been tried and tested worldwide for 20 years. Raw materials, composition and production processes are constantly being evaluated and improved.



EROSION PROTECTION ON HILLSIDES AND STEEP SLOPES

SECALFLOR Panels are used all over the world for hillsides and steep slopes. Once applied, the panels form a protective layer and prevent the soil from being eroded by water and wind. At the same time, they promote rapid rooting of the seeds and planting material with the subsoil. Water retention in the panels ensures stabilising vegetation cover is formed even under difficult climatic conditions. The use of panels for hillsides and steep areas (such as embankments or dykes) has been tested over years.

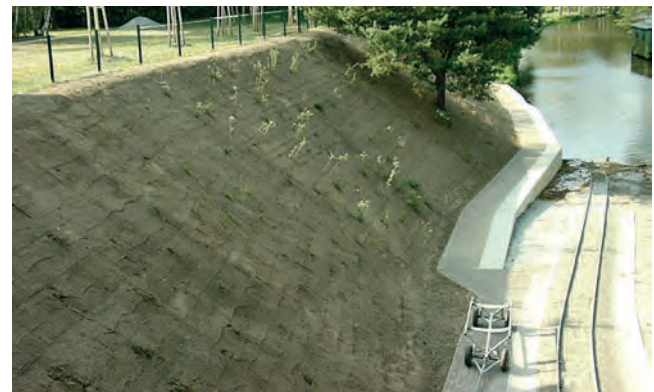
APPLICATIONS

- Motorway embankments
- Embankments
- Dykes
- Other steep slopes,
e.g. extremely busy mountain areas (ski resorts)

BENEFITS

- Only levelling needed, no additional earth moving required
- Can also be used in areas inaccessible to machines
- Quick bonding with the soil
- Prevents soil from drying out
- Immediate protection against drifting and leaching
- Reduced irrigation work, especially in inaccessible areas

APPLICATION EXAMPLE EMBANKMENT



Secalfloor Panels provide a solid base for planting greenery, even on slopes. They are used for greening embankments, dykes and steep slopes. Due to their solid structure, wind and water erosion does not occur and, at the same time, there is no hardening or obstruction of root growth. Instead, the retained moisture in the panels prevents the soil underneath from drying out and stimulates the plants to take root extremely quickly and deeply. This greening was carried out 10 years ago on the Dahme-Spree Canal (in the town of Märkisch Buchholz) and no reworking has been needed since then.



REGENERATION AND RECULTIVATION

SECALFLOR Panels not only prevent soil erosion due to water and wind, they also stimulate the soil. In particular, promoting microbiological metabolic processes leads to long-term improvements in soil quality, even in ground contaminated with pollutants. With their nutrient-rich ingredients and retained water, SECALFLOR Panels begin the process and create the initial spark to revive damaged soil biology. Supported by natural water retention and the targeted release of moisture, a new layer of vegetation quickly forms – even under adverse growing conditions.

If you have specific questions about decontamination, we will be happy to provide individual advice.

APPLICATIONS

- Overused or contaminated areas
- Previously sealed areas
- Areas contaminated with oil
- Saline ground
- Track bed greening

BENEFITS

- Metabolic processes are restarted and soil systems are revitalised
- Supported formation of ground vegetation
- Volume and need for land replacement reduced
- Increased resistance to droughts
- High capacity water absorption and retention
- Reduced irrigation costs
- Prevention of drifting
- Binding fine dust

REGENERATION OF OPEN-CAST MINING SITES



In the Lusatian mining area of Welzow-Süd in the German state of Brandenburg, a 20,000 m² slope owned by Laubag AG area was successfully decontaminated and regenerated. SECALFLOR Panels were laid to cover all the surface or used to create islands of vegetation. In both cases, the result is an extremely well-developed layer of vegetation.

RECULTIVATION



International airport in Jeddah, Saudi Arabia: When conducting comparative planting tests, the authorities in charge reported that SECALFLOR Panels saved 60% in water consumption. The solid structure counteracts drifting and erosion by water or wind.



SECAL
FLOR

REFERENCES

In recent years, applications have been carried out on various types of soil and in a wide variety of climatic areas. These applications were carried out by us and by independent institutions.

LANDFILL IN BRIESKE (GERMANY)



REGENERATION OF THE WELZOW SÜD OPEN-CAST MINE (GERMANY)



RECOLTIVATION GOBI DESERT (CHINA)



RECOLTIVATION AMMAN (JORDAN)



RAIL BED GREENING ATHENS (GREECE)



KERBSIDE GREEN RÜDERSDORF (GERMANY)

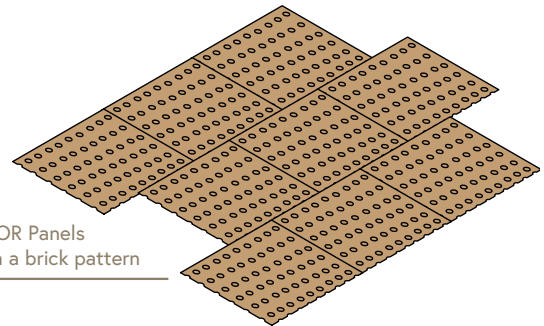
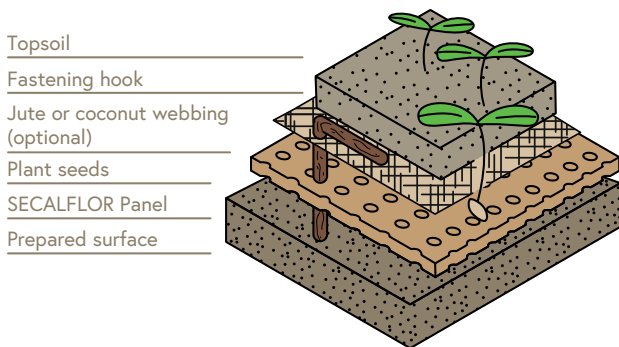




SECALFLOR

INSTALLATION IN SLOPING AND TRAFFIC AREAS

The panels are laid together on the ground and anchored with fastening hooks. Afterwards, the vegetation material (seeds, sprouts or similar) is applied and a thin layer of topsoil (approx. 2 cm) is covered to stabilise it. SECALFLOR Panels are also available with a seed coating. To make them easier to lay, the panels are available with optional jute webbing in units of 10 panels. This creates larger, strongly interconnected surface segments.



PRODUCT DATA



SECALFLOR PANELS PROPERTIES:

Length	78 cm
Width	59 cm
Height	2,5 cm
Dry weight	2 kg/m ² (± 0.5 kg)
Water absorption	up to 12 l/m ²

TRANSPORT

EURO pallet	with 60 m ² (= 131 Pcs.)
-------------	-------------------------------------