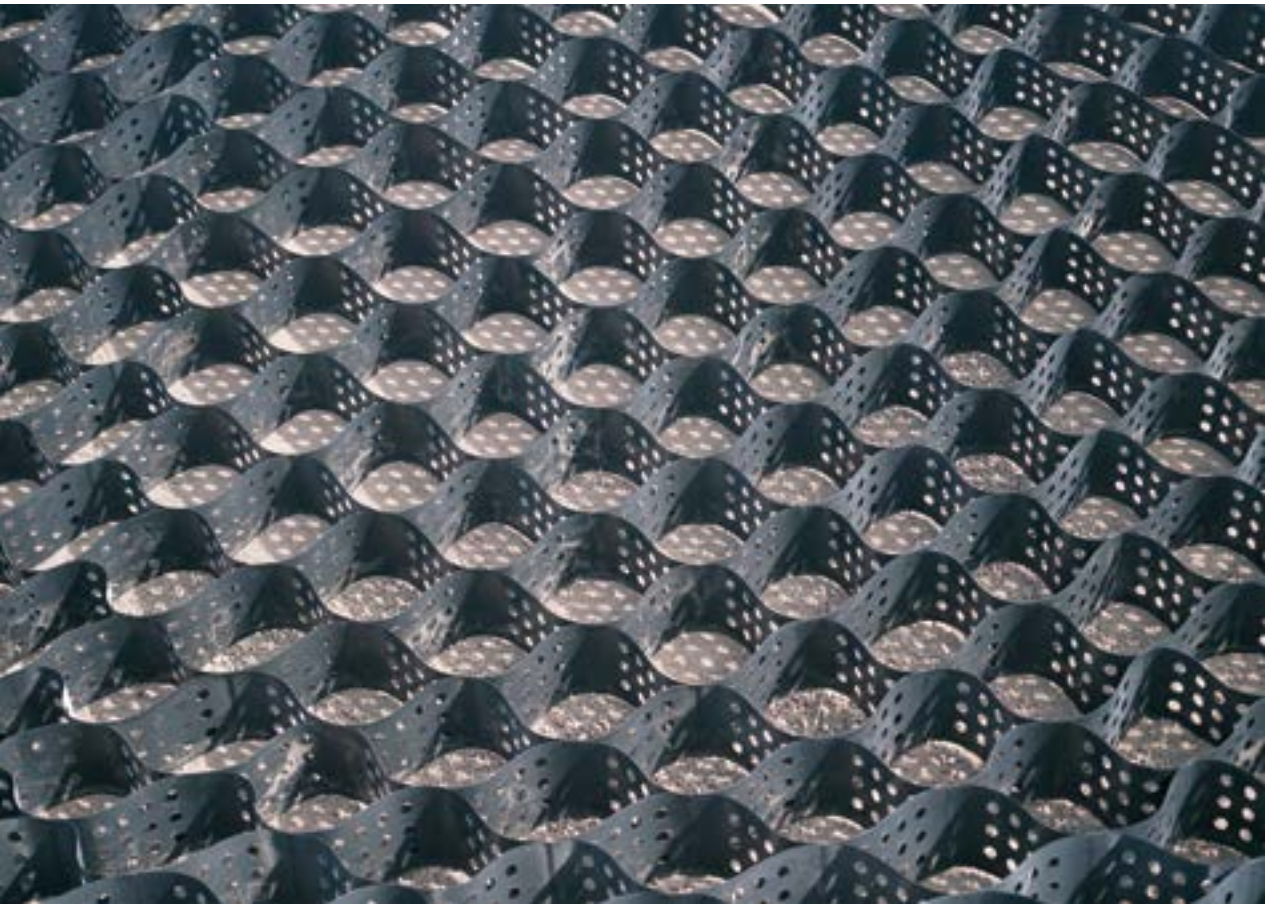
Secumat® Cell

Naue

The versatile, permanent erosion control geocells



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Building on sustainable ground.

Secumat® Cell *geocells are high-quality, areal processed products comprising pocket-like cells which have high UV stability and are chemically and biologically resistant. Secumat® Cell geocells have a special surface texture which ensures optimum contact between the geocells and the filling material. The cell walls are perforated in order to provide a hydraulic connection between the individual pockets and to allow excess water to drain away. The perforation therefore also provides a path for roots to grow between cells.*

A wide variety of filling materials can be used with Secumat® Cell. They are held in place by the pocket-like structure and thus provide erosion control.

Typical Secumat® Cell applications

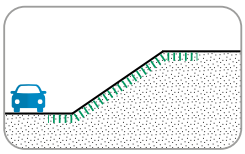

Figure 1:
Secumat® as a
green infrastructure

1. Protect slopes in infrastructure projects such as road, highway and bridge construction
Secumat® Cell can be used in many different infrastructure projects. A particular benefit is that different filling materials can be used. These may already be present on site or can be acquired inexpensively. The filling material can therefore be selected to suit the surface properties without having to be optimised to steep slopes. The cell structure is suitable for use with a very broad range of filling materials such as topsoil, sand, crushed stone, etc. (Fig. 1).

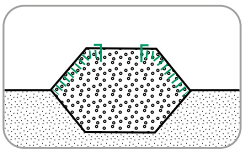

Figure 2:
Secumat® as
membrane protection

2. Vegetating, protecting and securing seals such as geomembrane or clay liners, e.g. slopes on landfill sites
Secumat® Cell can be statically secured and installed close to the surface on steep slopes or above sealing systems such as surface sealing systems on landfill sites. (Fig. 2)

3. Vegetating for rapid, long-term integration into the landscape
Planting can also be quickly established by using Secumat® Cell geocells in areas where vegetation would not have been possible without technical support or in demanding climatic or soil conditions (Fig. 3)

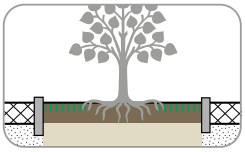

Figure 3:
Secumat® as
growth propagator

Benefits of using Secumat® Cell

Easy handling and minimal product bulk ensures economical transportation, lower environmental impact by reducing CO_2 emissions, and quick, cost-effective installation. No special tools or specific technical expertise are required to install. Sections are easily connected using the Secumat® Screw system. The sections are fixed to the ground using construction steels provided on site combined with the Secumat® PinCap system.

This provides high system security and tensile strength thanks to the large connecting surface area on the cell walls for the screws.

Rain water can pass through the cells due to their design, thus avoiding waterlogging. This encourages plant growth within the pockets which in turn binds the soil to the Secumat® Cell. This guarantees vegetated and sustainable soil retention with rapid integration into the landscape.

Figure 4: Secumat® Screw system of screw and nut

Figure 5: Secumat® PinCap as an end cap

Figure 6: Secumat® Cell 150 geocell high screwed together with Secumat® Screw and fixed to the soil with Secumat® PinCap

Figure 7: Secumat® Cell 100

Figure 8: Secumat® Cell 150

Benefits of Secumat® Cell

- Reliable and effective even under demanding conditions
- Can be used on slope inclinations up to 50°: The best solution where a product secures steep slope, such as on landfill sites or existing slopes
- Temperatureresistant, high UV stability, chemically and biologically resistant
- Extremely stable yet flexible (stresscracking resistance tested to ASTM – D1693)

Versatile Secumat® Cell variants

Secumat® Cell is available in the following variants (others available on request):

Product	Property	Value [cm]
Secumat® Cell 100	Cell pocket dimensions (W x L x H)	24.4 x 20.5 x 10
	Section dimensions (W x L x H)	257 x 779 x 10
Secumat® Cell 150	Cell pocket dimensions (W x L x H)	34.2 x 28.7 x 15
	Section dimensions (W x L x H)	318 x 1090 x 15

The connecting system for the geocell sections, Secumat® Screw, is included with the delivery and is calculated and packed for each project. Secumat® PinCap closing caps for fixing to the construction steel are also available for purchase. (Fig. 4 & 5)

Figure 9: Laying out Secumat® Cell 150 on a slope

Figure 10: Inserting Secumat® PinCap

Approvals for the Naue Group

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