



BIODEGRADABLE SOIL EROSION CONTROL BLANKETS

Product Brochure

Salix are a leading provider of fully biodegradable rolled erosion control blankets designed to protect and stabilise soil, prevent erosion, diffuse pollution and promote vegetation growth. Our range of products are engineered to deliver exceptional performance and durability to meet your project requirements.

www.salixrw.com

Salix



Biodegradable Soil Erosion Control Blankets

Our biodegradable erosion control blankets are made from natural coir fibers, which provide a unique combination of strength, durability, and environmental benefits. With a higher lignin content than other biodegradable products, our coir-based mats offer enhanced resistance to degradation and a longer lifespan.

These products are ideal for applications where a natural, biodegradable solution is required, such as river restoration, bank protection, SuDS and embankment stabilisation. Salix provide a range of biodegradable erosion blankets depending on site conditions and are happy to provide guidance on product selection.

Erosion control blankets are used to protect the soil and seed, while the seed germinates and vegetation establishes. Vegetation then provides a permanent erosion control revetment.

Specifying the right seed mix for the right habitat and environment is also a key factor for good vegetation growth. Salix are on hand to advise and offer a range of our UK native seed mixes, including custom mixes and our own specific mix for resisting erosion. Our mix includes a wide variety of species that have been selected to give a good range of rooting depths and root architecture.

Intimate contact between the blanket, ground and seed is imperative for protection performance and vegetation establishment. Therefore good ground preparation and choice of fixings are key to success. Salix can supply fixings and installation guidance, ensuring a smooth installation.





Biodegradable erosion control blankets provide soil protection whilst allowing vegetation to grow

Benefits

Our biodegradable erosion blankets offer numerous benefits, including:

Soil Erosion control:

Our erosion blankets protect soil while vegetation establishes. The vegetation root matrix will lock into underlying soils improving soil stability providing a long term revetment, preventing soil erosion, silt pollution and reducing the risk of soil slips.

Slowing Flows:

Our erosion blankets promote healthy root and stem development, this vegetation growth can slow down flows reducing downstream erosion protecting the waterways.

Flexible & Easy Installation:

Lightweight and versatile, our erosion blankets can be easily be installed manually in a variety of environments. They can be anchored using biodegradable wooden fixings.

Durability:

The coir fibres contain a higher lignin content than cellulose based biodegradable materials such as jute and hemp, meaning they breakdown slower, providing protection for longer.

Biodiversity:

Erosion blankets rely on vegetation long term to provide protection, the blankets support a variety of vegetation species, improving the biodiversity while protecting aquatic, riparian and terrestrial ecosystems.

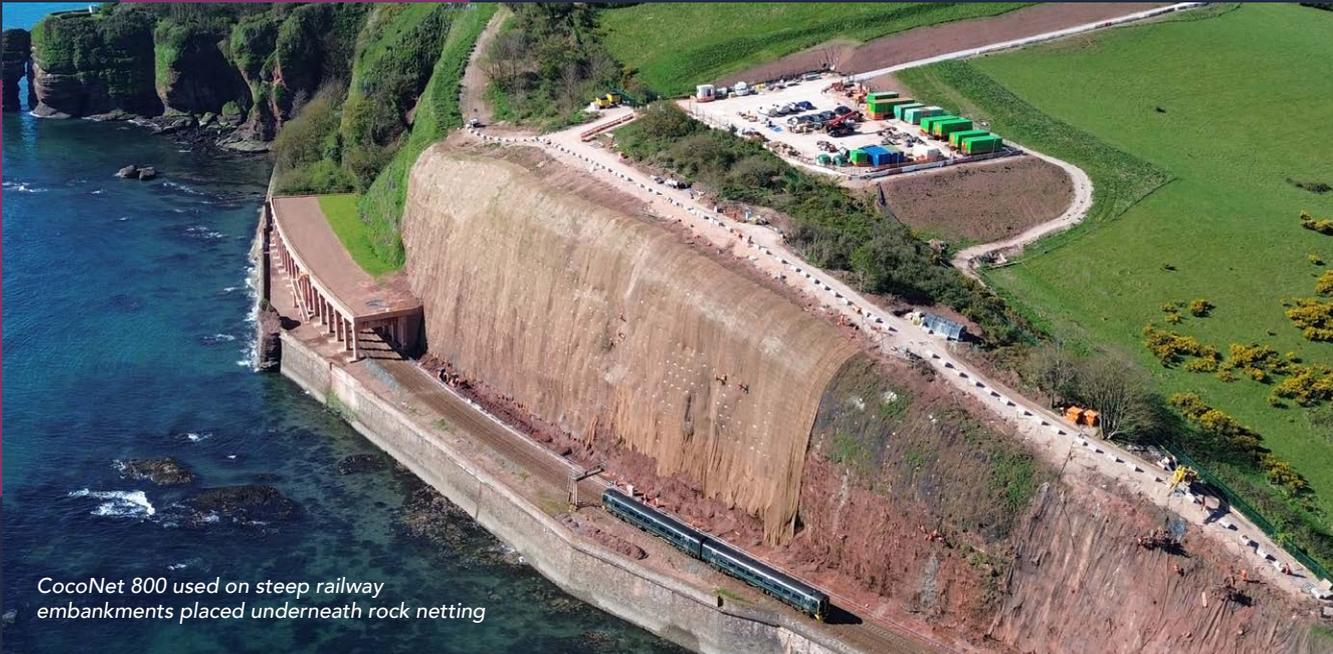
Sustainable:

Our coir is ethically and sustainably sourced from fully traceable organically managed plantations in Sri Lanka.

Carbon Sequestration:

Coir is the by-product of the coconut, which is a natural carbon sink, absorbing and storing carbon throughout its life cycle. As the coir biodegrades, it will form part of the soil in a wetland environment. All our coir based products are carbon neutral.





CocoNet 800 used on steep railway embankments placed underneath rock netting

CocoNet 800

CocoNet 800 is a robust and biodegradable erosion control net designed to provide immediate erosion protection to soils whilst allowing vegetation to grow. CocoNet 800 provides an excellent, cost-effective solution to limit erosion, increasing surface cover and roughness.

CocoNet 800 is a strong hand-woven biodegradable net made to our unique specification under licence in Sri Lanka. The hand-woven net increases surface cover and surface roughness, (as opposed to machine woven netting), which are key properties in controlling soil erosion. Design life can vary depending on biological activity within the soils and specific site conditions, e.g. soil type, aspect, temperature, moisture, but as a guide 36-60 month degradation period is possible.

CocoNet 800 can be used in high flow areas or where vegetation establishment can be slow such as steep slopes often in conjunction with rock netting as an alternative to bonded plastic. It's also effective with hydroseeding mulches, as the open aperture allows the mulch to knit into the netting and soils below. If very fine sediment/clay particles/silts are an issue, then our full surface coverage blanket – **C125BN** or the higher specification **CocoBN** can be considered.

CocoNet 800 can be supplied in roll or bale form and is secured using biodegradable timber T peg fixings to provide a 100% biodegradable erosion control system.



Hand woven CocoNet 800





Bionet C125BN

C125BN biodegradable erosion control blankets are designed to provide immediate, short term soil protection from high rainfall and fluvial events whilst vegetation establishes. The design life is circa 24 months, therefore the roots and stems of vegetation over time will form long term protection of the underlying soil.



Bionet C125BN drapes easily over undulating surfaces giving intimate ground contact



Bionet C125BN with established vegetation

C125BN blankets feature a layer of coconut fibre stitched with biodegradable jute thread between biodegradable natural jute fibre top and bottom nets. We do not use "hidden" lightweight plastic netting in our biodegradable range. Only 100% natural materials.

The dense layer of coconut fibre stitched between the woven jute netting enables C125BN to provide more effective erosion protection from day of installation compared to open plastic systems that require friable soil filling. C125BN is also better suited than our woven coir netting, CocoNet 800, when 100% surface coverage is required. I.e. no open apertures when very fine sediment/ clay particles/silts are an issue. C125BN can be installed onto a well prepared, seeded soil surface on shorelines, flood banks, riverbanks, SuDS and embankments (N.B vegetation will need to establish for long term protection).





CocoBN

CocoBN is the highest performing fully biodegradable erosion control matting that we manufacture, designed to be used in high flow applications where environmental sensitivity is critical. The matting is made from 100% natural and biodegradable fibres.



CocoBN used on an SSSI watercourse with local stone boulders



Grass growing through CocoBN mat

Made from our **sustainably sourced coir**, CocoBN consists of a coir blanket (Bionet C125BN) with a high strength coir netting stitched onto the top of the blanket with biodegradable jute. The coir netting increases tensile strength and surface roughness helping to dissipate flow energy. The blanket element will degrade typically over a 24 month period or less, whilst the coir netting can potentially last 36-60 months, depending on site conditions. Vegetation establishment is vital for longer term soil protection.

CocoBN can be installed onto a well prepared, seeded soil surface requiring instant protection on shorelines, flood banks, river banks, SuDS and steep embankments (N.B vegetation will need to establish for long term protection).

High strength coir netting stitched onto the top of the blanket with biodegradable jute





Applications



1 Bionet C125BN installed above brushwood fascine toe revetment



1 Bionet C125BN one year later



2 Newly installed CocoBN with coir roll & rock roll toe



2 CocoBN 5 months after installation, after significant flood events

Natural coir fibers, which provide a unique combination of strength, durability, and environmental benefits

1. River Restorations

Erosion control blankets can be used to stabilise riverbanks, prevent erosion, and promote natural vegetation growth. This helps to restore the natural flow of the river and maintain water quality.

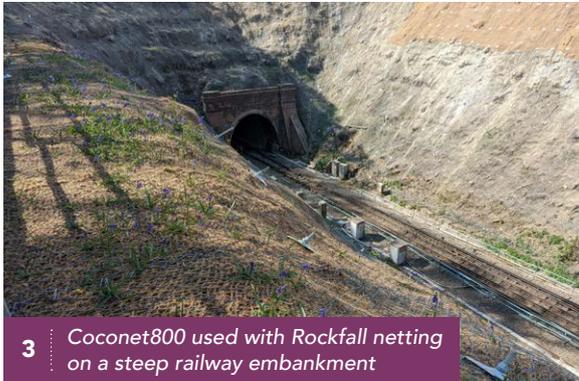
2. Bank Protection (Watercourse):

Erosion control blankets can be used to protect watercourse banks from erosion, undermining and flooding. This helps to maintain the integrity of the watercourse and prevent damage to nearby assets.





Applications



3 Coconet800 used with Rockfall netting on a steep railway embankment



3 C125BN on reprofiled breach repair



4 CocoBN used to stabilise the side slopes of a drainage channel at a water treatment works



4 C125BN used on a highway green swale with hydroseeding direct onto crushed stone

3. Embankment Stabilisation:

Erosion blankets can be used to stabilise embankments, prevent landslides, and maintain soil stability through vegetation establishment. This helps to prevent damage to surrounding infrastructure and prevent environmental hazards.

4. Sustainable Urban Drainage Systems (SuDS):

Erosion control blankets can be used to manage stormwater runoff, prevent silt pollution, and maintain water quality in SuDS such as swales and retention ponds. This helps to reduce the risk of flooding, maintain water quality, and support biodiversity.

All our
coir based
products
are carbon
neutral.





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