SWM

Advanced Materials & Structures

Conwed™ Square Netting

Conwed™ Netting for Erosion Control Applications

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swmintl.com

SWM International – Your Materials Partner

As experts in highly engineered parts made from resins and polymers, we provide solutions to make products stronger, more durable and with increased performance. Our Conwed™ Netting is designed to meet aggressive requirements related to temperature, chemicals, moisture and other extremes. We pride ourselves in our ability to offer unmatched products and services to demanding industries. **Learn more at swmintl.com or contact us at ams@swmintl.com today to learn how you can partner with SWM to start innovating essential solutions for your applications.**

Manufacturing Excellence

Our fundamental expertise is our ability to consistently produce high quality, advanced engineering-grade resins, stainless steel, polyurethane film and sheet. What can we engineer for you?

Custom Engineering

We work with our customers to understand your requirements, anticipate your needs and create tailor-made solutions.

Innovation

Our global team works together to develop cutting-edge solutions to solve our customers' toughest challenges.

Global Manufacturing

ISO 9001:2015, ISO 14001, ISO 50001 and OHSAS 18001 certified manufacturing facilities in the Americas, Europe and Asia supply customers' global needs.

Conwed Netting Solutions for Erosion Control

Our netting components provide flexible containment and protection functionalities that keep erosion in check.

At SWM we offer a complete portfolio of Conwed™ Square Netting and complementary materials used by manufacturers in the assembly of their final erosion control products. From netting for Rolled Erosion Control Products (RECPs) and Sediment Retention Fiber Rolls (SRFRs), to Prostran® Fibers and Yarn, we are your complete solutions provider for erosion control applications.

Understanding Erosion Control

Erosion Control is the practice of preventing or controlling wind or water erosion in agriculture, land development and construction. Vegetation, such as grasses and windflowers, and other materials such as straw, fiber, stabilizing emulsion, protective blankets are placed to stabilize areas disturbed by grading operations, reduce loss of soil due to the action of water or wind, and prevent water pollution.

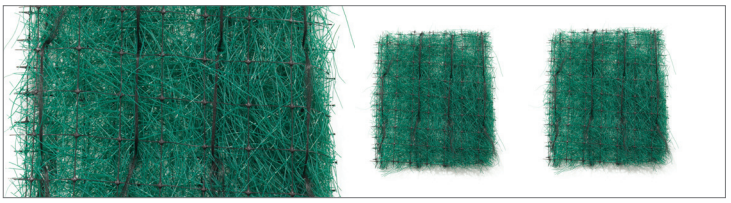
Types of Erosion Control Products

Based on information gathered through the Erosion Control Technology Council (ECTC), erosion control products can be classified in three main categories:

- Rolled Erosion Control Products (RECPs)
  - Erosion Control Blankets (ECBs)
  - Turf Reinforcement Mats (TRMs)
- Hydraulic Erosion Control Products (HECPs)
- Sediment Retention Fiber Rolls (SRFRs)

Erosion Control Blanket Netting

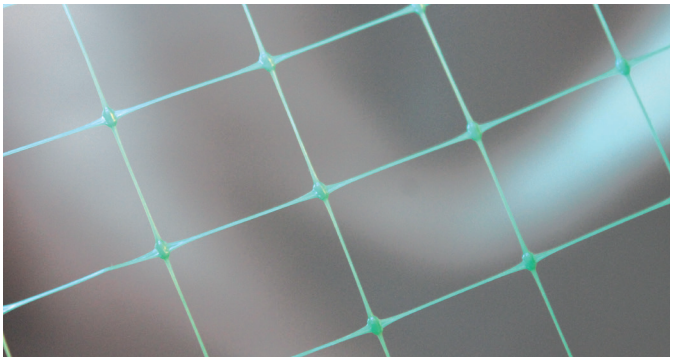
Erosion Control Blanket with Standard Netting



Turf Reinforcement Mat with Standard Netting, Prostran® Fibers & Yarn

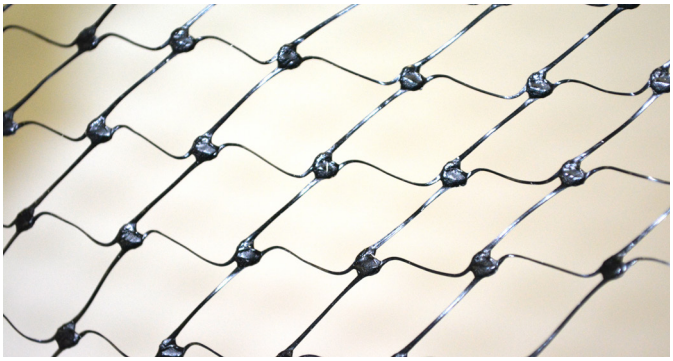
Sediment Retention Fiber Roll with Knitted Netting

Conwed Netting Portfolio



Erosion Control Blanket Netting

Conwed netting is used as the containment material in Rolled Erosion Control Products (RECPs) for temporary and permanent applications. Erosion Control Blanket (ECB) netting is designed to perform during the useful life of the blanket. Dependent on exposure to UV, temperature and other environmental conditions, the netting becomes brittle and tensile strength diminishes. Netting for Turf Reinforcement Mats (TRMs) provides the strength and durability for long term and permanent applications.



Wattle Netting

SWM manufactures extruded and knitted netting used as the containment material in Sediment Retention Fiber Rolls (SRFRs), also commonly known as wattles or socks. Our netting provides enough flexibility and movement without sacrificing tensile strength for the most challenging sediment and flow control applications. Depending on the final application, we can customize a wide range of netting characteristics to meet specific product requirements and performance.

PROSTRAN® Synthetic Fibers

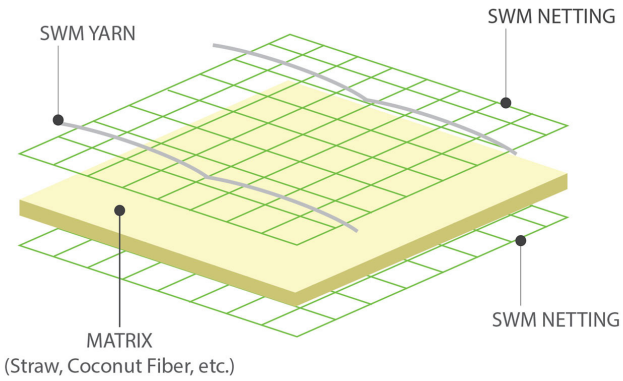
PROSTRAN synthetic fibers are designed and manufactured to provide excellent loft and matrix fill in Turf Reinforcement Mats (TRMs) for permanent erosion control applications. Our Prostran portfolio includes a variety of colors and recycled material that adapt to the requirements of the final erosion control application. These synthetic fibers offer excellent UV resistance to withstand the ultraviolet radiation exposure that fibers experience in its intended use and have superior crimping features to provide optimum loading and distribution in the TRM matrix.

Yarn

Conwed yarn is an exceptional high-tenacity polypropylene (PP) yarn used to stitch the layers of rolled erosion controlled products together, providing support and reinforcement. Conwed yarn can be designed to degrade after a determined exposure to light, water and oxygen. In other instances, Conwed yarn is tailored to resist UV light to prevent undesired degradation before the useful life of the product. Our yarn is available in a variety of colors and deniers to meet product specifications and performance targets.

Conwed Netting In Erosion Control Products

EROSION CONTROL BLANKET (ECB)

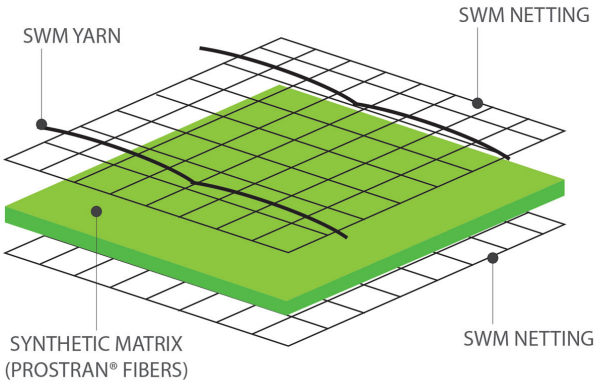


Erosion Control Blankets (ECBs)

ECBs are used for temporary applications. They are degradable RECPs composed of processed natural or polymer fibers mechanically, structurally or chemically bound together to form a continuous matrix to provide erosion control and facilitate vegetation establishment[1].

SWM manufactures two ECB components, the plastic netting used to contain the matrix and the yarn used to mechanically stitch the layers together. Our engineering teams are able to customize netting and yarn configurations to meet specific performance requirements.

TURF REINFORCEMENT MAT (TRM)

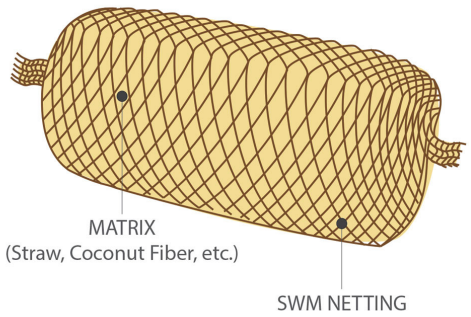


Turf Reinforcements Mats (TRMs)

TRMs are permanent RECPs composed of non-degradable synthetic fibers, filaments, nets, wire mesh and/or other elements, processed into a permanent, three-dimensional matrix of sufficient thickness. TRMs are typically used in hydraulic applications, such as high flow ditches and channels, steep slopes, stream banks, and shorelines, where erosive forces may exceed the limits of natural, unreinforced vegetation or in areas where limited vegetation establishment is anticipated[1].

SWM manufactures three TRM components: the Prostran synthetic fibers used as a matrix, the plastic netting containing them, and the yarn used to mechanically stitch the layers together.

SEDIMENT RETENTION FIBER ROLL (SRFR)



Sediment Retention Fiber Rolls (SRFRs)

SRFRs are manufactured 3-dimensional devices of a specified filler matrix encapsulated within a flexible containment material utilized in sediment and flow control applications. SRFRs are also known as wattles, logs, socks, tubes or fiber rolls. SRFRs, available as prefabricated units, are constructed into tubular configurations comprised of rice straw, wheat straw, excelsior fiber, wood fiber, coconut fiber, compost, flax or a similar matrix material. The matrix material is encapsulated within plastic netting, yielding an approximate functional life of 1-3 years[1].

SWM manufactures the plastic netting containing the matrix materials and can modify netting configurations for diverse erosion control applications.

REFERENCES:
[1] Source: Erosion Control Technology Council www.ectc.org

Conwed Netting In Erosion Control Products

SWM CONWED NETTING IN EROSION CONTROL PRODUCTS				
Category	Product Types	Applications	Functional Longevity	SWM Conwed Components
Rolled Erosion Control Products (RECPs)	Erosion Control Blanket (ECB)	Where natural vegetation alone will provide sufficient long term erosion protection.	Temporary RECPs	Plastic Netting + Yarn
	Turf Reinforcement MAT (TRM)	Where natural vegetation alone will not provide sufficient long term erosion protection or sustain expected flow conditions.	Permanent RECPs	Plastic Netting + PROSTRAN® Synthetic Fibers + Yarn
Sediment Retention Fiber Rolls (SRFRS) or Wattles	Sediment Retention Fiber Roll or Wattle	SRFRs slow and disperse runoff, thereby reducing soil erosion, and increasing infiltration. SRFRs are also known as "wattles," "socks," or "tubes."	Temporary	Extruded or Knitted Netting

*SWM offers plastic netting with degradability features. Contact our team for specific information about our manufacturing capabilities, resins, additives and products' functional life. SWM is a member of the International Erosion Control Association (IECA) (www.ieca.org) and the Erosion Control Technology Council (ECTC) (www.ectc.org).

Conwed Netting Solutions for Erosion Control

SWM recognizes the value of providing customized solutions to our partners. We build relationships with both our customers and our suppliers to ensure that we offer the best quality and service. We stay current on high-performance material issues to aid in product selection. We offer same day shipments, drop shipments and stocking agreements, as well as product customization per application. We strive to maintain high quality and achieve customer satisfaction with every order.

Our Facilities

SWM is focused on advanced materials and technologies in our ISO 9001, ISO 14001, ISO 50001 and OHSAS 18001 certified facilities. Our diverse product lines are recognized worldwide for their superior performance in a variety of applications. For more than 70 years, SWM has served its customers through a wide global manufacturing network with diverse processing capabilities developing solutions tailored to meet our customers unique requirements.

SWM locations shown
Genk, UK (top) and
Richland, PA, USA (bottom)

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About SWM

SWM is a leading global performance materials company. We use natural fibers, resins, and polymers to provide essential solutions that enhance product performance and help our customers win in a variety of industries and applications. For further information, please visit our web site at www.swmintl.com.