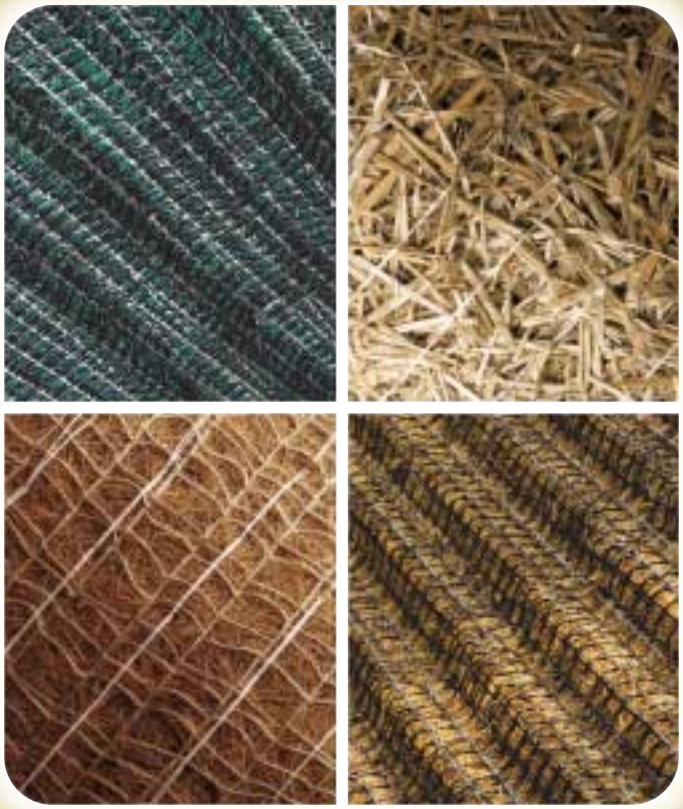


NORTH AMERICAN GREEN®

erosion control PRODUCTS

GUARANTEED solutions

North American Green

EROSION CONTROL PRODUCTS – GUARANTEED SOLUTIONS

North American Green was founded in 1985 and has become the leading manufacturer of rolled erosion control products in the world with more than 175 Erosion Control *Specialists* in over 100 distributor locations across the globe.

Our complete line of extensively-tested products includes short-term, extended-term, long-term photodegradable, and 100% biodegradable erosion control blankets, as well as permanent turf reinforcement mats. Our products successfully control soil erosion and assist with vegetation establishment and reinforcement on projects ranging from channels with high levels of water flow to manicured residential lawns and golf courses.

YOUR SUCCESS IS THE KEY TO OURS

We believe that no other company produces erosion control products that match our quality. We also believe that no company in any industry matches the exceptional quality of our customer service. North American Green was the first rolled erosion control product manufacturer to offer a product performance guarantee, and our new Ultimate Assurance Guarantee is the strongest in the industry. Additionally, we pledge to provide you with the very best possible erosion control design tools and technical support. We know that your success is the key to ours.

We have achieved success in such a wide variety of applications by offering excellent product flexibility and performance, by our ability to consistently supply product through our outstanding distributor network, and by providing unmatched technical support and customer service.

It's easy to see why government agencies, civil engineers, landscape architects, and contractors have trusted North American Green and our *specialized* distributors to provide guaranteed solutions for the past 20 years.

IMPORTANCE OF CONTROLLING EROSION

Billions of dollars are spent each year reconstructing slopes, dredging channels and rebuilding shorelines that have been severely degraded by rainfall, storm water runoff and sediment deposits. The impact of this damage can be devastating to our landscape, water sources and wildlife.

In addition, the United States Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) Phase II establishes strict federal soil erosion and sediment control regulations that affect 97.5% of all construction activity. Anyone in the U.S. who disturbs one acre or more of soil is required to file a Storm Water Pollution Prevention Plan (SWPPP) with appropriate local enforcement agencies or face stiff penalties, making the need to control erosion that much more tangible.

Armed with the latest technological advancements and a complete line of rolled erosion control products recognized by the EPA as Best Management Practices, North American Green's Erosion Control *Specialists* can help designers, specifiers and installers prevent much of this destruction and save precious time and money.

North American Green Products

RECOGNIZED AS PROBLEM SOLVERS

Every site has unique characteristics – including topographic features, soil characteristics and climatic variances – that affect the rate and type of potential soil erosion.

North American Green develops, produces and distributes 15 different high quality rolled erosion control products to meet the specific erosion control and/or vegetation establishment and reinforcement needs of nearly any application.

EROSION CONTROL BLANKETS – TEMPORARY

North American Green's degradable erosion control blankets are designed to provide immediate erosion protection and vegetation establishment assistance, then degrade after the root and stem systems of the vegetation are mature enough to permanently stabilize the underlying soil.

Short-term photodegradable erosion control blankets with a functional longevity from 45 days up to 12 months consist of an evenly distributed layer of 100% agricultural straw stitched with degradable thread to a single or double lightweight polypropylene netting structure.

Our **extended-term and long-term photodegradable erosion control blankets** include a long-lasting coconut fiber component stitched with degradable thread into a heavyweight polypropylene netting structure for added longevity and durability for protection up to 36 months.

In addition, North American Green has scientifically developed a series of short-term, extended-term and long-term **100% biodegradable erosion and sediment control products** to meet the ever-increasing demand for environmentally-sensitive, wildlife-friendly products.

TURF REINFORCEMENT MATS – PERMANENT

North American Green's permanent turf reinforcement mats provide long-term erosion protection and vegetation establishment assistance while permanently reinforcing vegetation. All of our turf reinforcement mats are built around a permanent, non-degradable three-dimensional matting structure and consist of either 100% synthetic components or a combination of synthetic and natural materials.

North American Green's turf reinforcement mats enable vegetation to be used in areas where the forces exerted by water and/or wind exceed the shear limits of unreinforced vegetation. Typical applications include high flow channels, streambanks, shorelines and other areas where rock riprap, articulated concrete blocks and poured concrete were once the only suitable alternatives for erosion protection.

NORTH AMERICAN GREEN PRODUCT ADVANTAGES

North American Green rolled erosion control products offer the following significant advantages over bare-ground seeding, loose mulching, hydraulic mulching, or using rock riprap or concrete for protecting slopes, drainage channels, streambanks, and shorelines:

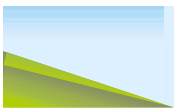
- Mechanically bonded by stitching on 1.5-inch (3.81-cm) centers to retain mulch on the steepest of slopes and high-flow channels
- Prevent loss of precious topsoil to wind and water erosion
- Provide excellent conditions for quick, healthy vegetation growth
- Provide long-term protection for dormant seeding during winter months
- Stabilize slopes from erosion to protect roadways and keep them safe and clean
- Protect water quality in lakes, rivers and streams
- Permanently reinforce the root and stem structures of vegetation
- Easily conform to landscape features
- Lightweight for easy handling and transportation

EROSION CONTROL BLANKETS – SHORT-TERM PHOTODEGRADABLE

North American Green's short-term photodegradable erosion control blankets consist of an evenly distributed layer of 100% agricultural straw stitched to a single or double polypropylene netting structure with degradable thread.

They are designed to provide erosion protection and assist with vegetation establishment for 45 days up to 12 months, depending on the type of product, in applications such as moderately sloping areas and low-flow channels where bare-ground seeding and loose mulches often fail. After the blankets degrade, soil erosion is controlled by the root, stem and leaf structures of the mature vegetation.

Typical Applications*



4:1 – 3:1 Slopes

Low-Flow Channels

Permissible Shear Stress: 1.55 lbs/ft² (74 Pa)

S75® / DS75® SINGLE NET STRAW BLANKETS

S75® and DS75® are constructed of 100% straw fiber stitched with degradable thread to a lightweight photodegradable polypropylene top net. S75 is designed to provide erosion protection and mulching on moderate slopes and low-flow channels in low maintenance areas for up to 12 months. Designed for high maintenance areas where close mowing will occur soon after installation, the DS75 degrades within 45 days because of special additives in the thread and top net that facilitate breakdown in sunlight.

STANDARD ROLL SPECIFICATIONS

Width: 6.67 ft (2.03 m) Area: 80 yd² (66.89 m²)
Length: 108 ft (32.92 m) Approx. Weight: 40 lbs (18.14 kg)
(other width options available)

S75

TOP NET
Lightweight photodegradable polypropylene
1.50 lbs/1000 ft² (0.73 kg/100 m²) approx wt

STRAW FIBER
0.50 lbs/yd² (0.27 kg/m²)

THREAD
Degradable

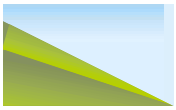
DS75

TOP NET
Lightweight accelerated photodegradable polypropylene
1.50 lbs/1000 ft² (0.73 kg/100 m²) approx wt

STRAW FIBER
0.50 lbs/yd² (0.27 kg/m²)

THREAD
Accelerated degradable

Typical Applications*



3:1 – 2:1 Slopes

Moderate-Flow Channels

Permissible Shear Stress: 1.75 lbs/ft² (84 Pa)

S150® / DS150® DOUBLE NET STRAW BLANKETS

S150® and DS150® feature a 100% straw fiber matrix stitched with degradable thread between lightweight photodegradable polypropylene top and bottom nets. The double net construction provides greater structural integrity than single net blankets for use on steeper slopes and in channels with moderate water flow. S150 is designed to provide erosion protection and mulching for up to 12 months. Designed for high maintenance areas where close mowing will occur soon after installation, the DS150 will degrade within 60 days because of special additives in the thread and top net that facilitate breakdown in sunlight.

STANDARD ROLL SPECIFICATIONS

Width: 6.67 ft (2.03 m) Area: 80 yd² (66.89 m²)
Length: 108 ft (32.92 m) Approx. Weight: 40 lbs (18.14 kg)
(other width options available)

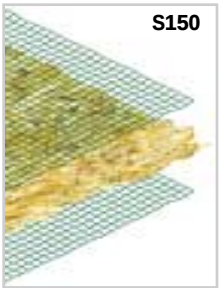
S150

TOP NET
Lightweight photodegradable polypropylene
1.50 lbs/1000 ft² (0.73 kg/100 m²) approx wt

STRAW FIBER
0.50 lbs/yd² (0.27 kg/m²)

BOTTOM NET
Lightweight photodegradable polypropylene
1.50 lbs/1000 ft² (0.73 kg/100 m²) approx wt

THREAD
Degradable



DS150

TOP NET
Lightweight accelerated photodegradable polypropylene
1.50 lbs/1000 ft² (0.73 kg/100 m²) approx wt

STRAW FIBER
0.50 lbs/yd² (0.27 kg/m²)

BOTTOM NET
Lightweight photodegradable polypropylene
1.50 lbs/1000 ft² (0.73 kg/100 m²) approx wt

THREAD
Accelerated degradable

*NOTE: This guide is for general purposes only. Actual project design and product selection should be developed using North American Green's ECMDS® software program.

EROSION CONTROL BLANKETS – EXTENDED-TERM & LONG-TERM PHOTODEGRADABLE

North American Green's extended-term and long-term photodegradable erosion control blankets utilize a double netting structure and include a long-lasting coconut fiber component.

They are designed to provide erosion protection and assist with vegetation establishment for 18 to 36 months, depending on the product, in applications such as steep slopes, medium- to high-flow channels and shorelines. After the blankets degrade, soil erosion is controlled by the root, stem and leaf structures of the mature vegetation.

TOP NET
Heavyweight UV stabilized polypropylene
3.0 lbs/1000 ft² (1.47 kg/100 m²) approx wt

STRAW/COCONUT MATRIX
70% straw at 0.35 lbs/yd² (0.19 kg/m²)
30% coconut at 0.15 lbs/yd² (0.08 kg/m²)

BOTTOM NET
Lightweight photodegradable polypropylene
1.50 lbs/1000 ft² (0.73 kg/100 m²) approx wt

THREAD
Degradable

SC150® DOUBLE NET STRAW-COCONUT BLANKET

SC150® is constructed with a layer of 70% straw and 30% coconut fiber stitched with degradable thread between a heavyweight UV stabilized polypropylene top net and a lightweight photodegradable polypropylene bottom net. The addition of coconut fiber and a UV stabilized top net increases the SC150's durability, erosion control capabilities and longevity for use on steeper slopes, medium-flow channels and other areas where vegetation will take up to 24 months to grow in.

STANDARD ROLL SPECIFICATIONS

Width: 6.67 ft (2.03 m) Area: 80 yd² (66.89 m²)
Length: 108 ft (32.92 m) Approx. Weight: 44 lbs (19.95 kg)
(other width options available)

Typical Applications*

2:1 – 1:1 Slopes

Medium-Flow Channels

Permissible Shear Stress:
2.00 lbs/ft² (96 Pa)

TOP NET
Heavyweight UV stabilized polypropylene
3.0 lbs/1000 ft² (1.47 kg/100 m²) approx wt

COCONUT FIBER
0.50 lbs/yd² (0.27 kg/m²)

BOTTOM NET
Heavyweight UV stabilized polypropylene
3.0 lbs/1000 ft² (1.47 kg/100 m²) approx wt

THREAD
UV stabilized polypropylene

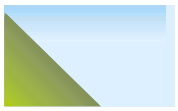
C125® DOUBLE NET COCONUT BLANKET

C125® is constructed of 100% coconut fiber stitched with UV stabilized polypropylene thread between heavyweight UV stabilized polypropylene top and bottom nets. The 100% coconut fiber and UV stabilized nets provide the highest level of durability, erosion control and longevity for protection of severe slopes, steep embankments, high-flow channels and other areas where vegetation will take up to 36 months to grow in.

STANDARD ROLL SPECIFICATIONS

Width: 6.67 ft (2.03 m) Area: 80 yd² (66.89 m²)
Length: 108 ft (32.92 m) Approx. Weight: 44 lbs (19.95 kg)
(other width options available)

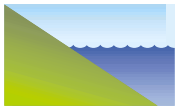
Typical Applications*



1:1 and Greater Slopes

High-Flow Channels

Permissible Shear Stress:
2.25 lbs/ft² (108 Pa)



Shorelines

*NOTE: This guide is for general purposes only. Actual project design and product selection should be developed using North American Green's ECMDS® software program.

biodegradable erosion protection

BIONET® 100% BIODEGRADABLE EROSION CONTROL BLANKETS

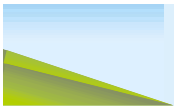
BioNet® 100% biodegradable erosion control blankets from North American Green provide effective and all-natural erosion control and mulching.

Unlike erosion control blankets with photodegradable plastic netting and yarn that depend on sunlight to degrade, all products in the BioNet series are composed of 100% organic materials that biodegrade completely. BioNet products are ideal for use in applications where synthetic materials may pose a threat to animals or the environment, such as wetland mitigation and bioengineering projects.

BioNet products feature a dense mulch layer stitched with biodegradable thread to either one or two jute nets. Providing better moisture absorption, flexibility and conformance with the soil surface, BioNet products demonstrate improved erosion control and mulching capabilities versus synthetic-netted erosion control blankets. The top net on all BioNet products is leno woven which ensures superior mechanical stability and fiber retention under severe conditions and makes BioNet products more stable than other biodegradable blankets that use cross-lay netting only.

Though designed to retain the mulch matrix under severe flow conditions, the interwoven strands of the BioNet netting can move independently of each other, minimizing the risk of accidental wildlife entrapment and enabling the use of live stakes and installation of trees, shrubs and other plantings – without compromising erosion control performance.

Typical Applications*



4:1 – 3:1 Slopes

Low-Flow Channels

Permissible Shear Stress: 1.60 lbs/ft² (76 Pa)

BioNet® S75BN™ SINGLE NET STRAW BLANKET

S75BN™ features a layer of 100% straw fiber stitched with biodegradable thread to a biodegradable natural fiber top net. S75BN provides better erosion protection and mulching action than conventional jute nettings alone and is typically effective for up to 12 months.

STANDARD ROLL SPECIFICATIONS

Width: 6.67 ft (2.03 m) Area: 80 yd² (66.89 m²)

Length: 108 ft (32.92 m) Approx. Weight: 46.5 lbs (21.09 kg)

TOP NET
Leno woven, 100% biodegradable jute fiber
9.30 lbs/1000 ft² (4.53 kg/100 m²) approx wt

STRAW FIBER
0.50 lbs/yd² (0.27 kg/m²)

THREAD
Biodegradable

*NOTE: This guide is for general purposes only. Actual project design and product selection should be developed using North American Green's ECMDS® software program.

biodegradable erosion protection

BIONET® 100% BIODEGRADABLE EROSION CONTROL BLANKETS

TOP NET
Leno woven, 100% biodegradable jute fiber
9.30 lbs/1000 ft² (4.53 kg/100 m²) approx wt

STRAW FIBER
0.50 lbs/yd² (0.27 kg/m²)

BOTTOM NET
Woven, 100% biodegradable jute fiber
7.70 lbs/1000 ft² (3.76 kg/100 m²) approx wt

THREAD
Biodegradable

BioNet® S150BN™

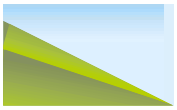
DOUBLE NET STRAW BLANKET

S150BN™ features a layer of 100% straw fiber stitched with biodegradable thread between biodegradable natural fiber top and bottom nets. S150BN is designed to provide up to 12 months of erosion protection and mulching in applications where the added durability of a double net structure is required.

STANDARD ROLL SPECIFICATIONS

Width: 6.67 ft (2.03 m) Area: 80 yd² (66.89 m²)
Length: 108 ft (32.92 m) Approx. Weight: 52 lbs (23.59 kg)

Typical Applications*



3:1 – 2:1 Slopes

Moderate-Flow Channels

Permissible Shear Stress:
1.85 lbs/ft² (88 Pa)

TOP NET
Leno woven, 100% biodegradable jute fiber
9.30 lbs/1000 ft² (4.53 kg/100 m²) approx wt

STRAW/COCONUT MATRIX
70% straw at 0.35 lbs/yd² (0.19 kg/m²)
30% coconut at 0.15 lbs/yd² (0.08 kg/m²)

BOTTOM NET
Woven, 100% biodegradable jute fiber
7.70 lbs/1000 ft² (3.76 kg/100 m²) approx wt

THREAD
Biodegradable

BioNet® SC150BN™

DOUBLE NET STRAW-COCONUT BLANKET

SC150BN™ features a layer of 70% straw and 30% coconut fiber stitched with biodegradable thread between biodegradable natural fiber top and bottom nets. SC150BN is designed to provide erosion protection and mulching for up to 18 months in applications where the strength of a double net structure and the added erosion control properties of coconut fiber are required.

STANDARD ROLL SPECIFICATIONS

Width: 6.67 ft (2.03 m) Area: 80 yd² (66.89 m²)
Length: 108 ft (32.92 m) Approx. Weight: 52 lbs (23.59 kg)

Typical Applications*

2:1 – 1:1 Slopes

Medium-Flow Channels

Permissible Shear Stress:
2.10 lbs/ft² (100 Pa)

TOP NET
Leno woven, 100% biodegradable jute fiber
9.30 lbs/1000 ft² (4.53 kg/100 m²) approx wt

COCONUT FIBER
0.50 lbs/yd² (0.27 kg/m²)

BOTTOM NET
Woven, 100% biodegradable jute fiber
7.70 lbs/1000 ft² (3.76 kg/100 m²) approx wt

THREAD
Biodegradable

BioNet® C125BN™

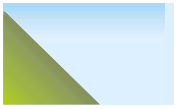
DOUBLE NET COCONUT BLANKET

C125BN™ features a layer of 100% coconut fiber stitched with biodegradable thread between biodegradable natural fiber top and bottom nets. The dense layer of coconut fiber stitched between the jute nettings enables C125BN to provide more effective erosion protection and mulch than woven coir nettings in critical applications for up to 24 months.

STANDARD ROLL SPECIFICATIONS

Width: 6.67 ft (2.03 m) Area: 80 yd² (66.89 m²)
Length: 108 ft (32.92 m) Approx. Weight: 52 lbs (23.59 kg)

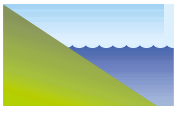
Typical Applications*



1:1 and Greater Slopes

High-Flow Channels

Permissible Shear Stress:
2.35 lbs/ft² (112 Pa)



Shorelines

*NOTE: This guide is for general purposes only. Actual project design and product selection should be developed using North American Green's ECMDS® software program.

PERMANENT TURF REINFORCEMENT MATS

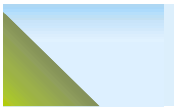
North American Green's permanent turf reinforcement mats (TRMs) allow vegetation to be used in areas where flow conditions exceed the limits of natural vegetation, including severe applications where rock riprap and concrete were once the only suitable alternatives.

The permanent matting structure of our TRMs reinforces the root and stem systems of vegetation against damage and extraction under high shear stress water flow, while the matrix filler material provides immediate to long-term erosion control and mulching for enhanced vegetation establishment.

Our TRMs are installed over the prepared seedbed and require no soil filling. This distinction is important because the exposed topsoil of manually soil-filled TRMs must, of course, be protected – typically requiring the costly addition of a temporary erosion control blanket over the TRM and soil layer.

Like our erosion control blankets, North American Green's TRMs are installed in a one-step operation directly over the prepared seedbed which saves time and money and ensures the highest level of erosion control and vegetation reinforcement.

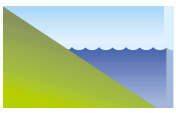
Typical Applications*



1:1 and Greater Slopes

High-Flow Channels

Permissible Shear Stress:
Unvegetated
3.00 lbs/ft² (144 Pa)
Vegetated
8.00 lbs/ft² (383 Pa)



Shorelines

P300® PERMANENT TURF REINFORCEMENT MAT

P300® is constructed of UV stabilized polypropylene fiber stitched with permanent polypropylene thread between heavyweight UV stabilized polypropylene top and bottom nets. Unvegetated P300 reduces soil loss to less than 0.5 inch (12.7 mm) under shear stress up to 3.0 lbs/ft² (144 Pa) and protects vegetation from being washed away or uprooted even when exposed to shear stresses up to 8 lbs/ft² (383 Pa). P300 can be used to protect a wide variety of problem areas, including steep slopes, high-flow channels and pond shorelines.

STANDARD ROLL SPECIFICATIONS

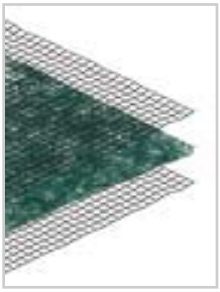
Width: 6.67 ft (2.03 m) Area: 80 yd² (66.89 m²)
Length: 108 ft (32.92 m) Approx. Weight: 61 lbs (27.67 kg)
(other width options available)

TOP NET
Extra heavyweight UV stabilized polypropylene
5.0 lbs/1000 ft² (2.44 kg/100 m²) approx wt

UV STABILIZED POLY FIBER
0.70 lbs/yd² (0.38 kg/m²)

BOTTOM NET
Heavyweight UV stabilized polypropylene
3.0 lbs/1000 ft² (1.47 kg/100 m²) approx wt

THREAD
UV stabilized polypropylene



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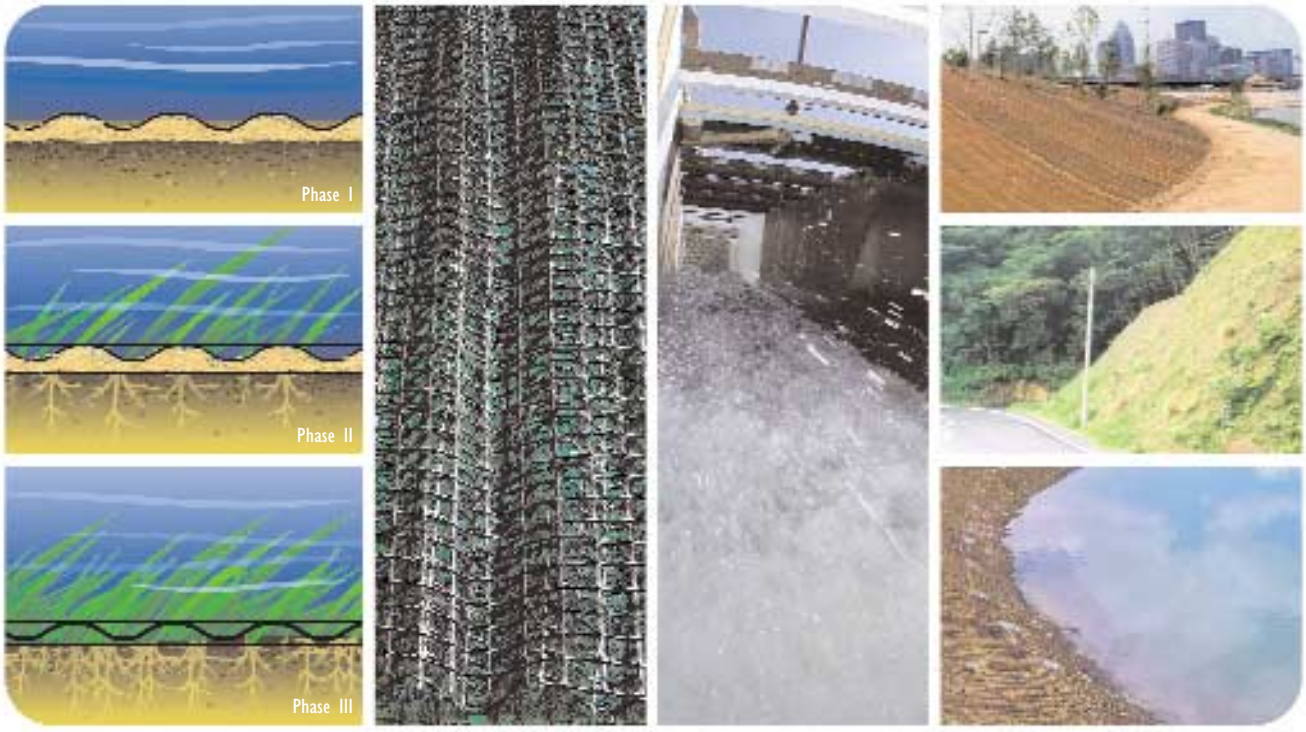
permanent protection

VMAX^{3}® COMPOSITE REINFORCEMENT SERIES

North American Green's Vmax^{3}® Composite Reinforcement Series consists of three different permanent turf reinforcement mats (TRMs) each designed to maximize performance through all three developmental phases of a reinforced vegetative lining (unvegetated – vegetation establishment – vegetation maturity).

Each Vmax^{3} product begins with a permanent, three-dimensional corrugated turf reinforcement matting structure that anchors and reinforces the roots and stems of vegetation for long-term stability, and helps create a shear plane that actually deflects the flowing water away from the soil surface – improving its immediate to long-term erosion control capabilities.

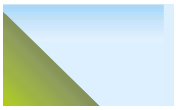
The matting structure is incorporated with either natural organic or UV stabilized fibers to further supplement the TRM structure's ground cover and moisture retention properties for dramatically improved erosion control and mulching action. In addition, all Vmax^{3} products are stitched on 1.5-inch (3.81-cm) centers with permanent thread, which adds significantly to their field performance capabilities.



Vmax^{3} products have been extensively tested under field and laboratory conditions, and the top-of-the-line Vmax^{3} P550 is proven to drive the shear resistance of vegetation to over 14 lbs/ft^{2} – establishing a new maximum for vegetation reinforcement!

The Vmax^{3} Composite Reinforcement Series effectively incorporates the best features of our temporary and permanent products to provide maximum erosion protection, vegetation establishment assistance, and permanent vegetation reinforcement in a wide variety of applications – including severe slopes, high to extreme-flow channels, spillways, streambanks, and shorelines – where drainage pipe, rock riprap and concrete linings were once the only viable alternatives.

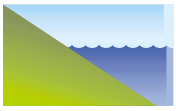
Typical Applications*



1:1 and Greater Slopes

High-Flow Channels

Permissible Shear Stress:
Unvegetated
3.00 lbs/ft² (144 Pa)
Vegetated
10.0 lbs/ft² (480 Pa)



Shorelines

VMAX³® SC250®

PERMANENT TURF REINFORCEMENT MAT

Vmax³® SC250® is incorporated with a 70% straw/30% coconut fiber matrix which enhances the permanent matting's initial mulching and erosion control performance for up to 24 months. Proven in laboratory and field research, unvegetated SC250 reduces soil loss to less than 0.5 inch (12.7 mm) under shear stress up to 3.0 lbs/ft² (144 Pa). The permanent matting's high strength 3-D structure increases the shear resistance of vegetation up to 10 lbs/ft² (480 Pa), 10 times that of comparable unreinforced vegetation! The SC250 enables vegetation to be used in many applications where 24-inch to 30-inch (60-cm to 76-cm) rock riprap was once the only viable alternative.

STANDARD ROLL SPECIFICATIONS

Width: 6.5 ft (2 m) Area: 40 yd² (33.4 m²)
Length: 55.5 ft (16.9 m) Approx. Weight: 35 lbs (15.87 kg)

TOP NET
Black polypropylene
5.0 lbs/1000 ft² (2.44 kg/100 m²) approx wt

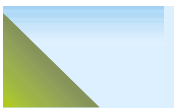
CENTER NET
Black polypropylene–corrugated
24.0 lbs/1000 ft² (11.7 kg/100 m²)

STRAW/COCONUT MATRIX
70% straw at 0.35 lbs/yd² (0.19 kg/m²)
30% coconut at 0.15 lbs/yd² (0.08 kg/m²)

BOTTOM NET
Black polypropylene
5.0 lbs/1000 ft² (2.44 kg/100 m²) approx wt

THREAD
Permanent

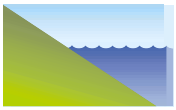
Typical Applications*



1:1 and Greater Slopes

High-Flow Channels

Permissible Shear Stress:
Unvegetated
3.2 lbs/ft² (153 Pa)
Vegetated
12.0 lbs/ft² (576 Pa)



Shorelines

VMAX³® C350®

PERMANENT TURF REINFORCEMENT MAT

Vmax³® C350® is incorporated with a 100% coconut fiber matrix which supplements the permanent matting's initial mulching and erosion control performance for up to 36 months. Proven in laboratory and field research, unvegetated C350 reduces soil loss to less than 0.5 inch (12.7 mm) under shear stress up to 3.2 lbs/ft² (153 Pa). The super-high strength permanent 3-D structure boosts the shear resistance of vegetation up to 12 lbs/ft² (576 Pa), offering permanent erosion protection exceeding that of 30-inch (76-cm) rock riprap. The C350 provides a cost-effective, environmentally friendly "green" alternative for severe erosion control projects.

STANDARD ROLL SPECIFICATIONS

Width: 6.5 ft (2 m) Area: 40 yd² (33.4 m²)
Length: 55.5 ft (16.9 m) Approx. Weight: 37 lbs (16.78 kg)

TOP NET
Black polypropylene
8.0 lbs/1000 ft² (3.91 kg/100 m²) approx wt

CENTER NET
Black polypropylene–corrugated
24.0 lbs/1000 ft² (11.7 kg/100 m²)

COCONUT FIBER
0.50 lbs/yd² (0.27 kg/m²)

BOTTOM NET
Black polypropylene
8.0 lbs/1000 ft² (3.91 kg/100 m²) approx wt

THREAD
Permanent

*NOTE: This guide is for general purposes only. Actual project design and product selection should be developed using North American Green's ECMDS® software program.

TOP NET
Black polypropylene
24.0 lbs/1000 ft² (11.7 kg/100 m²) approx wt

CENTER NET
Black polypropylene—corrugated
24.0 lbs/1000 ft² (11.7 kg/100 m²)

POLYPROPYLENE FIBER
0.50 lbs/yd² (0.27 kg/m²)

BOTTOM NET
Black polypropylene
24.0 lbs/1000 ft² (11.7 kg/100 m²) approx wt

THREAD
Permanent

VMAX³® P550®

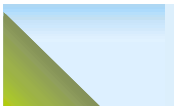
PERMANENT TURF REINFORCEMENT MAT

Vmax³® P550® is incorporated with a 100% polypropylene fiber matrix which augments the permanent matting's initial mulching and erosion control performance as well as its permanent vegetation reinforcement capabilities. Proven in laboratory and field research, unvegetated P550 reduces soil loss to less than 0.5 inch (12.7 mm) under shear stress up to 4.0 lbs/ft² (191 Pa). The ultra-high strength permanent 3-D structure of P550 drives the shear resistance of vegetation up to 14 lbs/ft² (672 Pa) – establishing a new maximum for vegetation reinforcement! The P550 is the ultimate choice in place of poured concrete or articulated concrete blocks for extreme erosion control projects.

STANDARD ROLL SPECIFICATIONS

Width: 6.5 ft (2 m)
Length: 55.5 ft (16.9 m)
Area: 40 yd² (33.4 m²)
Approx. Weight: 52 lbs (23.59 kg)

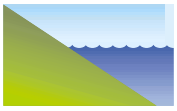
Typical Applications*



1:1 and Greater Slopes

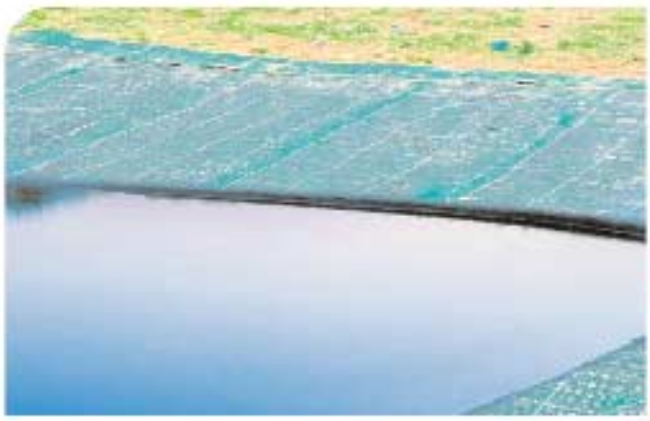
Extreme High-Flow Channels

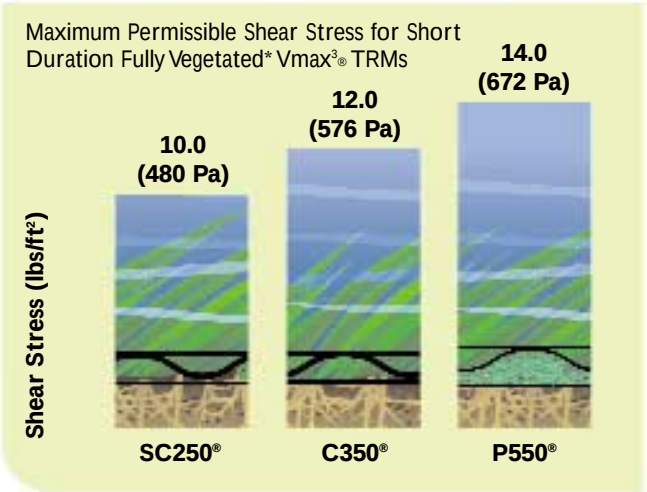
Permissible Shear Stress:
Unvegetated
4.00 lbs/ft² (191 Pa)
Vegetated
14.0 lbs/ft² (672 Pa)

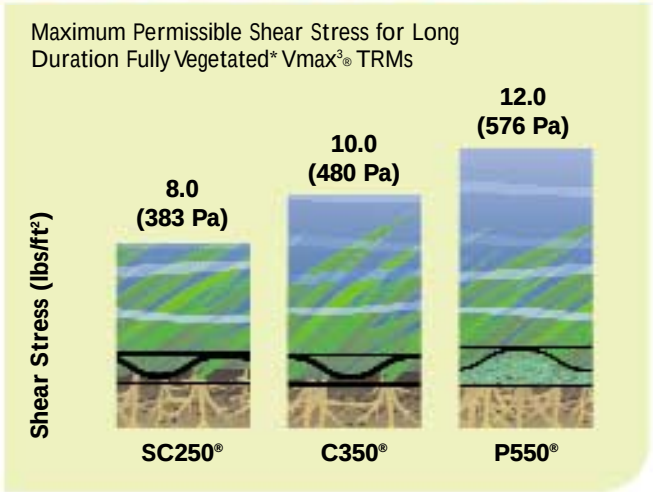


Shorelines

*NOTE: This guide is for general purposes only. Actual project design and product selection should be developed using North American Green's ECMDS® software program.







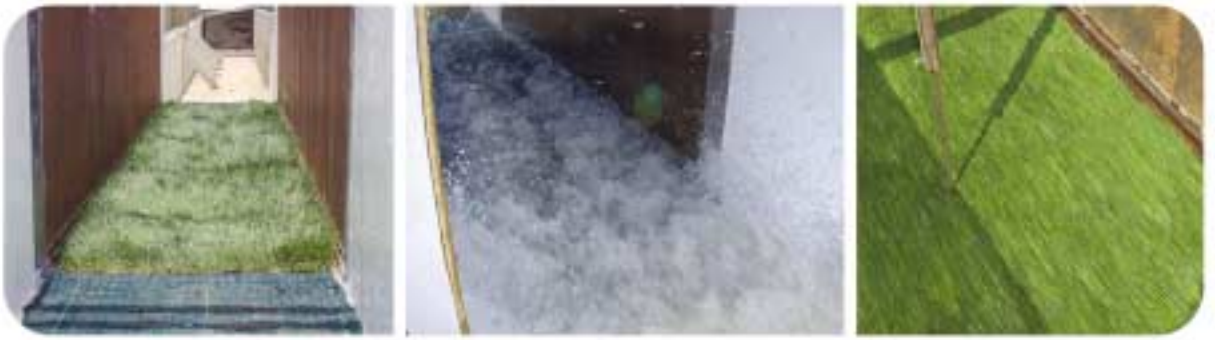
* FHWA Class "C" vegetation at 75-90% density. Design values will vary with vegetative stand height and density. Consult North American Green's ECMDS® design software for Class specific design values.

NOTE: Fully vegetated reinforcement research conducted for the SC250 and C350 with only the permanent three-dimensional mat structure present.

Construction and disturbed sites are continually faced with more stringent state and federal erosion and sediment control regulations, and North American Green strives to assist engineers, designers and contractors in meeting and adhering to these regulations through extensive product research and testing.

We do this with the sole purpose of providing our customers with the confidence, knowledge and assurance in the design, selection, and use of all North American Green products to meet the demanding regulations affecting their projects.

We are so confident in our research, quality, and each product's total performance that we developed the industry's first design software for rolled erosion control products, the Erosion Control Materials Design Software (ECMDS®), and backed it with the industry's only written guarantee, the *Ultimate Assurance Guarantee*. (See *Ultimate Assurance Guarantee* section on page 23 for more details.)



INDEPENDENTLY PROVEN PERFORMANCE

From our inception, North American Green has conducted product research and testing according to the latest industry standards – and has developed testing protocol where there was none – to provide confidence in the design and field performance levels of every North American Green rolled erosion control product. Research facilities have included Utah State University, the Texas Transportation Institute, University of Hawaii, Drexel University, University of Guelph, and Colorado State University (CSU).

University laboratory research and field testing have been conducted on all of North American Green's degradable erosion control blankets to quantify their performance for unvegetated slope erosion control and channel scour protection under a variety of environmental extremes and conditions. Additionally, all North American Green turf reinforcement mats have been tested for their immediate erosion control (unvegetated), long-term erosion control (vegetated), and vegetation reinforcement properties.

By compiling the data from all this research, North American Green has developed erosion control performance factors for each of our RECPs for inclusion in ECMDS.

The research doesn't stop once initial performance levels are established. North American Green continues to rigorously test our products, with research recently completed at CSU on the Vmax^{3}® Composite Reinforcement Series of turf reinforcement mats.

One conclusion can be drawn from the extensive research conducted over the years: "North American Green RECPs significantly reduce soil erosion and enhance vegetation establishment and long-term survivability."

Independently Proven Performance + Consistent, Uncompromising Quality = Guaranteed Results

CONSISTENT, UNCOMPROMISING QUALITY

While continued large-scale research is used to establish and define the performance values of each of our products, North American Green also conducts extensive ongoing physical property testing to ensure that each product functions in the field like those used in performance testing.

Our consistent quality and state-of-the-art manufacturing techniques enable North American Green to confidently submit our entire line of products to random quality testing by the National Transportation Product Evaluation Program (NTPEP) of the American Association of State Highway and Transportation Officials (AASHTO).

Through NTPEP, an unbiased AASHTO representative selects products at random from warehouse stock and ships them to a laboratory to conduct independent third party physical property and bench-scale performance testing. To learn more about their testing program – visit www.ntpep.org.

State-of-the-art production lines help ensure consistent quality in all North American Green products.

GUARANTEED RESULTS

North American Green didn't become the leading manufacturer of rolled erosion control products in the world by being content. We did it by continually striving to find ways to improve the technical superiority of our products, submitting our products to rigorous testing, expanding our production capabilities, making our globally-oriented ECMDS software both more user-friendly and more comprehensive, and instituting unmatched customer service and technical support protocol.

It is because of all these efforts that we are able to offer the most comprehensive guarantee in the industry – the North American Green *Ultimate Assurance Guarantee*. So design and use North American Green products with confidence that you are guaranteed greener projects, cleaner water and reduced regulatory hassles.

BIODEGRADABLE SEDIMENT FILTRATION SYSTEM

Unprotected topsoil, particularly on sloping areas or active construction sites, is vulnerable to significant erosion and sediment problems. In fact, millions of dollars are spent each year restoring slopes, rebuilding drainage channels, and dredging and cleaning ponds and streams. Additionally, lack of compliance with local and federal environmental regulations – such as NPDES Phase II – can result in costly construction delays and substantial fines. North American Green's SedimentSTOP® is an effective Best Management Practice to prevent much of this costly damage.

SEDIMENTSTOP® BIODEGRADABLE SEDIMENT FILTRATION SYSTEM

SedimentSTOP® consists of straw and coconut fiber reinforced with a 100% biodegradable netting that is rolled from edge to edge to create a temporary, water-permeable sediment filtration structure. SedimentSTOP reduces soil loss caused by storm water runoff, traps soil particles while allowing water to pass through, and protects waterways, sidewalks and roads from sediment accumulation.

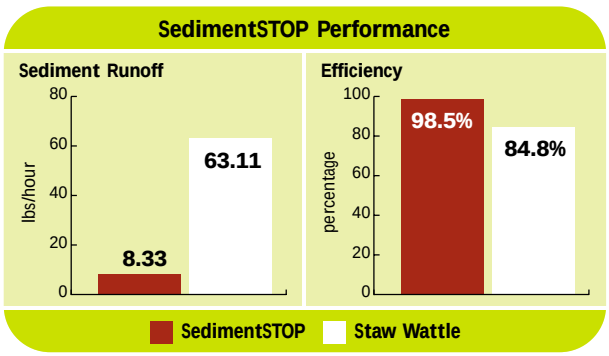
Because it is field fabricated, SedimentSTOP allows for greater flexibility in meeting specific site requirements, and the diameter of the finished roll can be increased, if necessary, with grass clippings, pine needles, straw, or leaves. The 50-foot finished length minimizes seam construction, while the lightweight rolls can be easily transported over difficult terrain or to remote areas.

The totally biodegradable SedimentSTOP is ideal for use in forest fire rehabilitation, pipeline re-vegetation, bioengineering projects, commercial/new home and resort construction, industrial sites and highway projects.

STANDARD ROLL SPECIFICATIONS
Width: 6.67 ft (2.03 m)
Length: 50 ft (15.2 m)
Area: 37 yd² (30.94 m²)
Approx. Weight: 65 lbs (29.5 kg)

SedimentSTOP has many performance advantages, especially over conventional methods such as hay bales, straw wattles and silt fence.

- 100% biodegradable, so there is no costly and time-consuming removal like with most alternatives.
- The structurally-sound, net-reinforced layers prevent failures if the outer netting wrap is damaged after installation.
- Extremely flexible and readily conforms to the ground surface, so undercutting is minimized.
- The combination of straw and coconut fibers improves filtration capabilities, maximizing sediment retention.
- Proven to be up to 98.5% effective at reducing sediment migration.
- The attached Splash Apron™ improves sediment filtration while reducing potential downhill erosion.



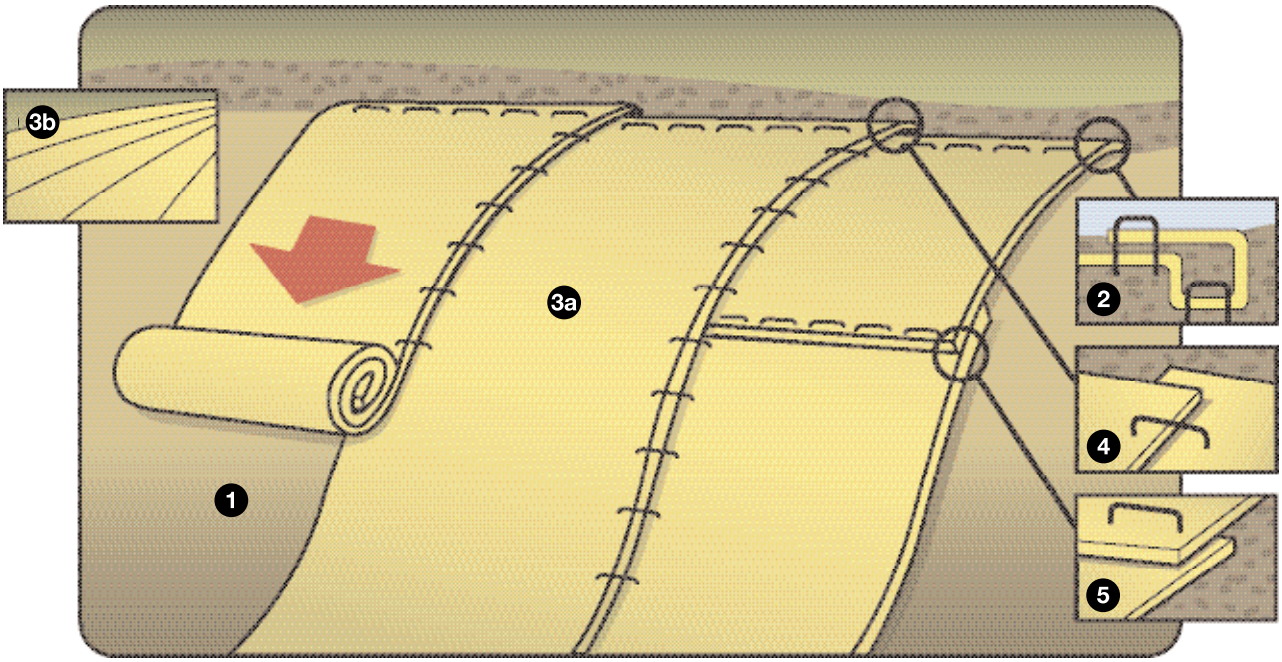
- Based on research conducted at Utah State University's Water Research Facility.
- Plot size = 20 ft long / 2 horizontal: 1 vertical gradients.
- Each plot was exposed to 4 inches of rain fall for one hour.
- Two SedimentSTOPs and two wattles were installed on each plot, one at the mid point and one 2 ft. from the bottom end.
- Sediment was collected and measured from each protected plot and also from the bare soil control plot.
- Research was conducted on a sandy loam soil.

GENERAL INSTRUCTIONS

The following instructions are common for all successful erosion control blanket and turf reinforcement mat installations (slopes/drainage channels/shorelines):

1. Prepare the seedbed by raking, seeding and fertilizing.
2. Use trenching and anchoring procedures to secure any exposed material ends.
3. Keep material in direct contact with the ground.
4. Blankets will unroll with appropriate side against soil surface.
5. Use the required number of staples.
6. Secure all material overlaps.
7. In slope and channel applications, overlap material in the direction of water flow.

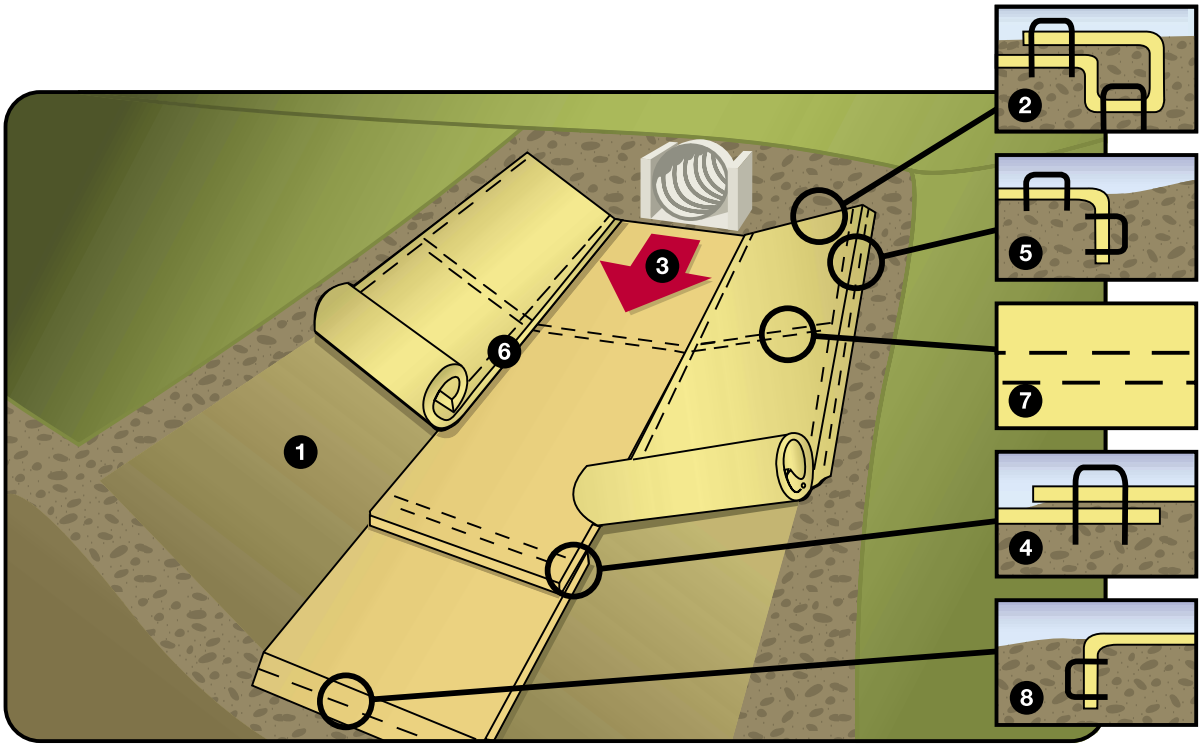
SLOPES



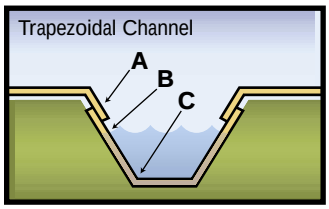
1. Prepare soil before installing blankets, including any necessary application of lime, fertilizer, and seed.
2. Anchor the blanket at the top of the slope in a 6-inch (15-cm) deep x 6-inch (15-cm) wide trench with a row of staples/stakes approximately 12 inches (30 cm) apart in the bottom of the trench. Leave approximately 12 inches (30 cm) of blanket extended beyond the up-slope portion of the trench. Backfill and compact the trench after stapling and apply seed to compacted soil. Fold remaining 12-inch (30-cm) portion of blanket back over and secure blanket with a row of staples/stakes approximately 12 inches (30 cm) apart across the width of the blanket.
3. Roll the blankets (a) down or (b) horizontally across the slope. Securely fasten blankets to soil surface with staples/stakes as shown in the staple pattern guide. When using DOT System®, place staples/stakes through the colored dots corresponding to the appropriate staple pattern.
4. Staple the edges of parallel blankets with 2 – 5 inches (5 – 12.5 cm) of overlap depending on blanket type.
5. Place consecutive blankets spliced down the slope end over end (shingle style) with an approximate 3-inch (7.5-cm) overlap. Staple through overlapped area, approximately 12 inches (30 cm) apart across entire blanket width.

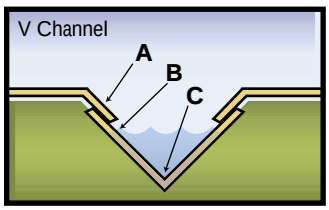
NOTE: In loose soil conditions, the use of staple or stake lengths greater than 6 inches (15 cm) may be necessary to properly anchor the blankets.

DRAINAGE CHANNELS



1. Prepare soil before installing blankets, including any necessary application of lime, fertilizer, and seed.
2. Anchor the blanket at the top of the slope in a 6-inch (15-cm) deep x 6-inch (15-cm) wide trench with a row of staples/stakes approximately 12 inches (30 cm) apart in the bottom of the trench. Leave approximately 12 inches (30 cm) of blanket extended beyond the up-slope portion of the trench. Backfill and compact the trench after stapling and apply seed to compacted soil. Fold remaining 12-inch (30-cm) portion of blanket back over and secure blanket with a row of staples/stakes approximately 12 inches (30 cm) apart across the width of the blanket.
3. Unroll center blanket in direction of water flow on bottom of channel. Securely fasten blankets to soil surface with staples/stakes as shown in the staple pattern guide. When using DOT System®, place staples/stakes through the colored dots corresponding to the appropriate staple pattern.
4. Place blankets end over end (shingle style) with a 4 – 6 inch (10 – 15 cm) overlap. Secure blankets with a double row of staples staggered 4 inches (10 cm) apart and 4 inches (10 cm) on center.
5. Anchor full-length edge of blankets at top of side slopes with a row of staples/stakes approximately 12 inches (30 cm) apart in a 6-inch (15-cm) deep x 6-inch (15-cm) wide trench. Backfill and compact the trench after stapling.
6. Overlap adjacent blankets 2 – 5 inches (5 – 12.5 cm) (depending on blanket type) and staple.
7. In high-flow channel applications, a staple check slot is recommended at 30 – 40 foot (9 – 12 m) intervals using a double row of staples staggered 4 inches (10 cm) apart and 4 inches (10 cm) on center over entire width of channel.
8. Anchor the terminal end of the blankets with a row of staples/stakes approximately 12 inches (30 cm) apart in a 6-inch (15-cm) deep x 6-inch (15-cm) wide trench. Backfill and compact the trench after stapling.





CRITICAL POINTS

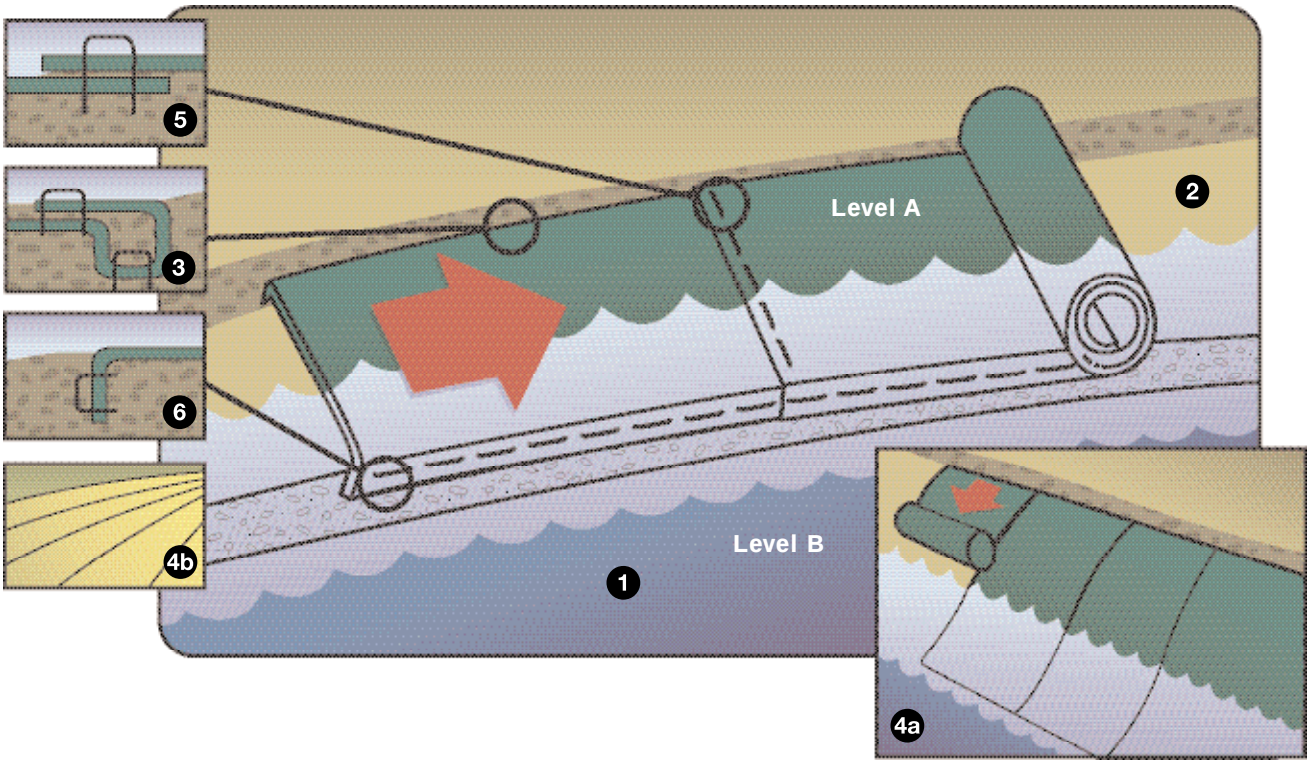
A. Overlaps and seams

B. Projected water line

C. Channel bottom/side slope vertices

NOTE: Horizontal staple spacing should be altered if necessary to allow staples to secure the critical points along the channel surface.

NOTE: In loose soil conditions, the use of staple or stake lengths greater than 6 inches (15 cm) may be necessary to properly anchor the blankets.



1. For easier installation, lower water from Level A to Level B before installation.
2. Prepare soil before installing blankets, including any necessary application of lime, fertilizer, and seed.
3. Anchor the blanket at the top of the shoreline in a 6-inch (15-cm) deep x 6-inch (15-cm) wide trench with a row of staples/stakes approximately 12 inches (30 cm) apart in the bottom of the trench. Leave approximately 12 inches (30 cm) of blanket extended beyond the up-slope portion of the trench. Backfill and compact the trench after stapling and apply seed to compacted soil. Fold remaining 12-inch (30-cm) portion of blanket back over and secure blanket with a row of staples/stakes approximately 12 inches (30 cm) apart across the width of the blanket.
4. Roll blankets either (a) down the shoreline for long banks, or (b) horizontally across the shoreline slope. Securely fasten blanket to soil surface with staples/stakes as shown in the staple pattern guide. When using DOT System®, place staples/stakes through the colored dots corresponding to the appropriate staple pattern.
5. Place horizontal and vertical blanket seams shingle style in the direction of predominant erosive action with a 2 – 5 inch (5 – 12.5 cm) overlap. Secure all overlaps with a row of staples spaced approximately 12 inches (30 cm) apart.
6. Anchor the edge of the blanket at or below normal water level in a 12-inch (30-cm) deep x 6-inch (15-cm) wide trench with a row of staples/stakes spaced approximately 12 inches (30 cm) apart. Backfill and compact the trench after stapling (stone or soil may be used as backfill).

NOTE: In loose soil conditions, the use of staple or stake lengths greater than 6 inches (15 cm) may be necessary to properly anchor the blankets.

DOT SYSTEM®

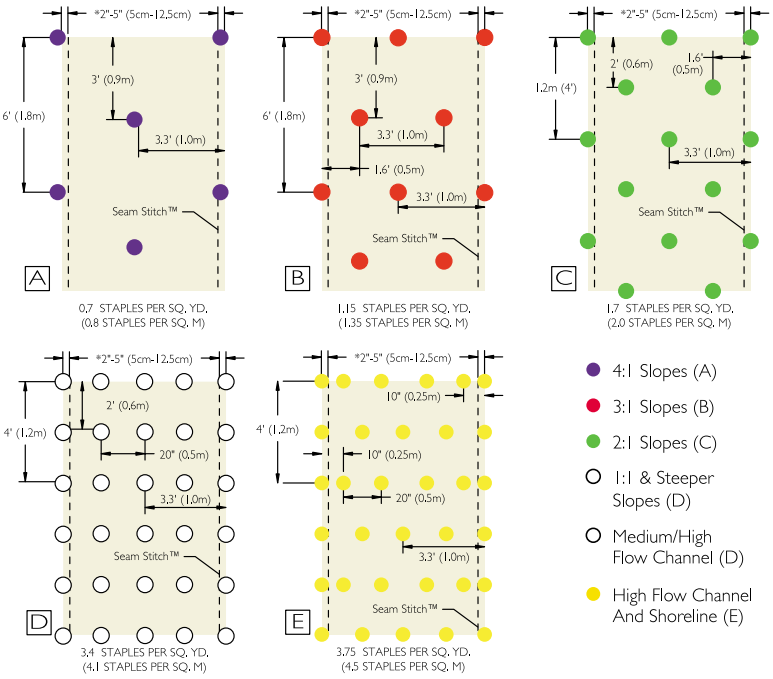
The DOT System® featured on all of North American Green's standard† double net blankets and turf reinforcement mats utilizes color-coded dots to mark exact staple/stake placement locations, which provides several benefits including:

- Easy to understand
- Speeds installation
- Reduces installation costs
- Ensures proper staple/stake use
- Simplifies inspection

† Not available on North American Green's single net or extended roll width products.

STAPLE PATTERNS

Proper staple patterns must be used to achieve optimal results in rolled erosion control product installation. The drawings to the right illustrate North American Green's generally recommended staple patterns on our standard width products and the corresponding dot colors for those patterns.



NOTE: These staple patterns are for our standard roll width products. Staple patterns for extended roll width products are available on the North American Green website at: www.nagreen.com/installation/patterns.html.

* Location of Seam Stitch™ will vary depending on product type.

FASTENERS

North American Green supplies several fastener options for blanket and mat installers. Our rigid, biodegradable BioSTAKEs® are available in 4-inch (10.16-cm) and 6-inch (15.24-cm) lengths and provide an environmentally friendly alternative to metal staples. Both lengths are available in 20-stake cartridges for use with the manual and pneumatic-drive models of the SureLock® II Cartridge BioSTAKE Gun.

Wire staples are available in 6-inch (15.24-cm) and 8-inch (20.32-cm) lengths; and 24-staple cartridges of the 6-inch (15.24-cm) staples are available for use with the manual and pneumatic-drive models of the SureLock® II Cartridge Wire Staple Gun.

North American Green also provides wooden EcoSTAKEs® in 6-inch (15.24-cm), 12-inch (30.48-cm), 18-inch (45.72-cm) and 24-inch (60.96-cm) lengths.

BioSTAKEs®
4" & 6"
(10.16 cm & 15.24 cm)

Wire Staples
6" & 8"
(15.24 cm & 20.32 cm)

SureLock®
6" (15.24 cm)
Wire Staple Cartridges

EcoSTAKEs®
6," 12," 18" & 24"
(15.24 cm, 30.48 cm, 45.72 cm & 60.96 cm)

SureLock® II CONVERTIBLE STAPLE GUN

The patented all-new SureLock® II Convertible Staple Guns from North American Green are the quickest, easiest, most efficient way to install rolled erosion control products, geotextiles, sod, and any other material that must be secured to the ground. Both the SureLock® II Cartridge Wire Staple Gun and the SureLock® II Cartridge BioSTAKE® Gun are available in manual and pneumatic-drive models to offer the ultimate in flexibility, dependability and innovation.

SURELOCK® II CARTRIDGE WIRE STAPLE GUN

The SureLock II Cartridge Wire Staple Gun holds 33% more staples than the original SureLock, yet it weighs 25% less thanks to its innovative composite metal and polymeric construction.

This composite construction also reduces drag and wear, prevents part seizing, resists rust, enables simple water cleanup, and requires only periodic lubrication.

The more powerful spring system of the SureLock II ensures proper feeding of staples, while the widened and hardened staple shear system facilitates correct discharge of staples. In addition, the open barrel drive system allows simple cleanup, enables self-clearing of bent staples and reduces the need for lubrication in dirty environments.

SureLock® II
Cartridge Wire Staple Gun

SURELOCK® II CARTRIDGE BIOSTAKE® GUN

North American Green has custom engineered the SureLock II Cartridge BioSTAKE Gun to make it easier and more economical to meet the ever increasing demand for biodegradable fasteners in environmentally sensitive and high maintenance projects.

The side-loading magazine holds 60 of the North American Green 4-inch (10.16-cm) or 6-inch (15.24-cm) BioSTAKEs®, the innovative 100% biodegradable plastic fasteners available only from North American Green.

Constructed of the same materials and featuring the same mechanical design advantages as the SureLock II Cartridge Wire Staple Gun, the lightweight SureLock II Cartridge BioSTAKE Gun is easy to load, easy to use, easy to clean, and easy to store.

SureLock® II
Cartridge BioSTAKE® Gun

SURELOCK® II PNEUMATIC-DRIVE

Both the wire staple and BioSTAKE SureLock II guns are available in pneumatic-drive models to make installation even easier while saving time and reducing operator fatigue.

The SureLock II Pneumatic-Drive Assembly is also sold separately, so you can easily convert your wire staple or BioSTAKE manual-drive SureLock II into a pneumatic model in just a matter of minutes.

SureLock® II
Pneumatic-Drive
Assembly

erosion control materials design software

ECMDS® SOFTWARE

North American Green's easy-to-use Erosion Control Materials Design Software (ECMDS®) helps ensure proper design, soil loss prediction, product specification and project planning and is a necessity for every engineer, designer or contractor who must comply with today's strict erosion and sediment control regulations.

ECMDS provides computer-assisted design and selection of materials for slope erosion protection and channel scour resistance based on data from laboratory and field research involving North American Green's erosion control blankets and turf reinforcement mats, vegetation, TRM-reinforced vegetation, and riprap.

Our slope protection module is the first performance-based selection system developed specifically for rolled erosion control products. This module provides an analysis of site parameters such as slope gradient and length, soil type and erodibility, and local rainfall energy and intensity. The program is based on soil-loss calculations obtained from the United States Department of Agriculture's Handbook #703 "Predicting Soil Erosion by Water: A Guide to Conservation Planning with the Revised Universal Soil Loss Equation (RUSLE)" for material evaluation and sediment control analysis.

The channel protection module is based on calculations from the Federal Highway Administration's Hydraulic Engineering Circular #15 (HEC 15) "Tractive Force Procedure" and the U.S. Department of Agriculture's Handbook (AG HBK 667) "Stability Design of Grass-Lined Open Channels." This module provides an analysis of the effects of water flow hydraulics on materials such as North American Green's erosion control blankets and turf reinforcement mats, vegetation and rock riprap.

One of the unique features is that ECMDS contains a vegetation module to assist in the selection of vegetation types and seeding rates to coordinate with RECPs for various erosion control applications across North America.

ECMDS® 4.3 PROGRAM HIGHLIGHTS

- Includes slope, channel and vegetation modules
- Includes installation CAD drawings
- Incorporates updated design values for all Vmax³® products
- Specify English or Spanish language
- Use either English or metric/SI units
- Can view, print, save and edit material specification text files for inclusion in complete project specifications
- Can take advantage of the Ultimate Assurance Guarantee when you use ECMDS to design and specify your projects
- Can access online or download from www.nagreen.com, or request on CD-ROM

ULTIMATE ASSURANCE GUARANTEE

North American Green has made the most comprehensive product performance guarantee in the industry even more robust with the introduction of the *Ultimate Assurance Guarantee*.

With the *Ultimate Assurance Guarantee*, all registered projects designed using ECMDS® 4.3 and installed properly are warranted to unmatched levels, enabling engineers and contractors to design effective erosion control with complete confidence.

Under the *Ultimate Assurance Guarantee*, if any properly designed, specified and installed North American Green product fails, North American Green will replace the failed product with the next higher performance North American Green product, along with the cost of any seed, fertilizer, topsoil or other amendments lost due to product failure.

Plus, North American Green turf reinforcement mats are now guaranteed to reinforce vegetation for a period of five years, and the functional longevity of the permanent structures of these products is now warranted for an unprecedented minimum of 10 years after installation.

For more information and actual guarantee details go to www.nagreen.com/guarantee.

PRODUCT APPLICATION GUIDE

TEMPORARY PROTECTION

	PRODUCT	PRODUCT DESCRIPTION	LONGEVITY	APPLICATIONS	PERMISSIBLE SHEAR STRESS[1] Bare Soil	MAX. FLOW VELOCITY[2]	TYPICAL PROJECTS
Short-Term	S75	1.50 lb. photodegradable polypropylene top net 100% straw fiber matrix	12 mos.	4:1 – 3:1 slopes Low-flow channels	1.55 (74)	5.00 (1.52)	Highways; Mines; Pipeline; Woodlands; Golf Courses; Residential Lawns; Landfill Caps
	DS75	1.50 lb. accelerated photodegradable polypropylene top net 100% straw fiber matrix	45 days				
	S150	1.50 lb. photodegradable polypropylene top & bottom nets 100% straw fiber matrix	12 mos.	3:1 – 2:1 slopes Moderate-flow channels	1.75 (84)	6.00 (1.83)	
	DS150	1.50 lb. accelerated photodegradable polypropylene top & bottom nets 100% straw fiber matrix	60 days				
Extended-Term	SC150	3.0 lb. UV stable polypropylene top net 70% straw/30% coconut fiber matrix 1.50 lb. photodegradable polypropylene bottom net	24 mos.	2:1 – 1:1 slopes Medium-flow channels	2.00 (96)	8.00 (2.44)	Steeper Slopes; Landfills
Long-Term	C125	3.0 lb. UV stable polypropylene top & bottom nets 100% coconut fiber matrix	36 mos.	1:1 & greater slopes High-flow channels	2.25 (108)	10.00 (3.05)	Landfill Caps; Drainage Ditches
BioNet® 100% Biodegradable	S75BN	9.30 lb. leno woven biodegradable jute top net 100% straw fiber matrix	12 mos.	4:1 – 3:1 slopes Low-flow channels	1.60 (76)	5.00 (1.52)	Wetland Mitigation; Bioengineering
	S150BN	9.30 lb. leno woven biodegradable jute top net 100% straw fiber matrix 7.70 lb. woven biodegradable jute bottom net	12 mos.	3:1 – 2:1 slopes Moderate-flow channels	1.85 (88)	6.00 (1.83)	
	SC150BN	9.30 lb. leno woven biodegradable jute top net 70% straw/30% coconut fiber matrix 7.70 lb. woven biodegradable jute bottom net	18 mos.	2:1 – 1:1 slopes Medium-flow channels	2.10 (100)	8.00 (2.44)	
	C125BN	9.30 lb. leno woven biodegradable jute top net 100% coconut fiber matrix 7.70 lb. woven biodegradable jute bottom net	24 mos.	1:1 & greater slopes High-flow channels	2.35 (112)	10.00 (3.05)	

[1] lbs/ft² (Pascal) [2] ft/s (m/s)

PERMANENT PROTECTION

	PRODUCT	PRODUCT DESCRIPTION	APPLICATIONS	LIMITING SHEAR STRESS[3] Bare Soil Short*	Bare Soil Long*	Vegetated Short*	Vegetated Long*	PERMISSIBLE VELOCITY[4] Bare Soil	Vegetated	TYPICAL PROJECTS
	P300	5.0 lb. UV stable polypropylene top net 100% polypropylene fiber matrix 3.0 lb. UV stable polypropylene bottom net	1:1 slopes Extended flow areas High-flow channels	3.0 (144)	2.0 (98)	8.0 (383)	8.0 (383)	9.0 (2.7)	16.0 (4.9)	Roadside Ditches; Shoreline Protection; Severe Slopes
Vmax²® Composite Reinforcement Series	SC250	5.0 lb. UV stable polypropylene top & bottom nets 24.0 lb. UV stable polypropylene corrugated center net 70% straw/30% coconut fiber matrix	1:1 & greater slopes Medium- to high- flow channels 24 month grow-in period	3.0 (144)	2.5 (120)	10.0 (480)	8.0 (383)	9.5 (2.9)	15.0 (4.6)	Roadside Ditches; Golf Course Swales; Stream bank Protection
	C350	8.0 lb. UV stable polypropylene top & bottom nets 24.0 lb. UV stable polypropylene corrugated center net 100% coconut fiber matrix	High-flow channels 1:1 & greater slopes 36 month grow-in period	3.2 (153)	3.0 (144)	12.0 (576)	10.0 (480)	10.5 (3.2)	20.0 (6.0)	Drainage Ditches; High Flow Areas; Shoreline Protection
	P550	24.0 lb. UV stable polypropylene top & bottom nets 24.0 lb. UV stable polypropylene corrugated center net 100% polypropylene fiber matrix	Extreme high-flow channels 1:1 & greater slopes 36 month grow-in period or when sparse vegetation stand is expected	4.0 (191)	3.25 (156)	14.0 (672)	12.0 (576)	12.5 (3.8)	25.0 (7.6)	Spillways; Swales; High Flow Drainage Areas; Shoreline Protection

NOTE: This guide is for general purposes only. Actual project design and product selection should be developed using North American Green's ECMDS® 4.3 software.

[3] lbs/ft² (Pascal) [4] ft/s (m/s)
*Depicting duration of flow

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