CONTECH®
CONSTRUCTION PRODUCTS INC.

Erosion Control Solutions

Knowledge. Solutions. Service.

Water Quality and Soil Erosion

Soil erosion is a serious environmental threat and is a major contributor to the degradation of water quality. Wind, rain and runoff displace soil particles from bare or sparsely covered earth, potentially reducing the stability of the original site and impairing the performance of downstream drainage systems.

The strong root structures of well established vegetation help control soil erosion. For slopes and channels, erosion blankets are cost-effective aids for erosion control and revegetation. CONTECH Construction Products Inc. offers a complete line of biodegradable erosion control fiber blankets and permanent geosynthetic turf reinforcement mats. When environmental conditions go beyond the limits of natural or reinforced vegetation, CONTECH also offers a full line of hard armor solutions.

Erosion Control Blankets and Turf Reinforcement Mats Maintain Water Quality

With the ultimate goal of establishing healthy, permanent vegetation, properly selected erosion blankets offer many benefits when deployed correctly. These products are specifically designed to:

- Absorb rainfall impact/energy
- Reduce runoff velocities
- Absorb and/or retain moisture
- Enhance germination by moderating temperature fluctuations and retaining soil moisture
- Entrap soil/sediment
- Provide root/stem reinforcement
- Provide natural organic mulch upon breakdown (degradable blankets only)
- Facilitate ground water recharge
- Enhance water quality

CONTECH Provides Solutions for Erosion Control, Shoreline Protection and Sediment Control

Only CONTECH offers such a broad range of high-quality products for establishing vegetation on disturbed soils, protecting soil against high-shear stresses, restricting silt displacement that accompanies runoff from poorly-vegetated sites and improving the performance of hard armor shoreline protection systems. CONTECH products are the cost-effective solution to soil erosion and sediment control problems.

Degradable Erosion Control Blankets Protect Slopes and Channels when Developing New Vegetation

CONTECH temporary blankets—comprised of straw fiber, photodegradable polypropylene, excelsior fibers, straw/coconut mixed fibers, or 100% coconut fibers—protect seedlings and later decompose to provide natural mulch.

Permanent, Non-degradable Synthetic Turf Reinforcement Mats Stabilize Vegetated Slopes and Channels

When flow conditions or other site factors result in shear stresses that exceed the limits of natural vegetation alone, CONTECH's permanent turf reinforcement mats maintain the integrity of vegetated slopes and channels.

Temporary Degradable Blankets

Applications from Mild-to-Steep Slopes and Mild Channels

SFB1 & SFB2: Straw fiber blankets with netting on one or both sides. Intended for mild slopes and channels and are expected to last approximately 12-18 months.

SCFB2: Straw-coconut fiber blanket that has two layers of netting. Designed for moderate slopes and mild channels, they are intended to last approximately 24 months.

CFB2: A coconut fiber blanket between two layers of net. Designed for steep slopes and mild channels and should last up to 36 months.

EFB1 & EFB2: Excelsior fiber blankets with one or both sides of netting. Intended for moderate slopes and mild channels and normally last approximately 12-18 months.

EFB4: Excelsior fiber blanket with netting on top and bottom—stitch-bonded. Designed for steep slopes and mild channels and is intended to last approximately 24 months.

C-Jute: A lightweight, open weave polypropylene jute blanket. Intended for mild slopes and channels and should last approximately 12 months.

Temporary erosion control blankets provide an excellent growing environment for newly seeded embankments and slopes where vegetation alone cannot withstand the natural erosive environment.

Permanent Erosion Control Mats Reinforce Natural Vegetation in Critical Applications

Permanent Synthetic Matting

CONTECH's turf reinforcement mats (TRMs) provide permanent erosion protection in severe and critical applications. In such environments, natural vegetation alone cannot endure the service conditions without experiencing harmful disruptions.

The lofty, three-dimensional, open structure of CONTECH TRMs make these products ideal for entrapping soil, retaining seeds and—upon germination—reinforcing roots and stems of developing plants.

Vegetated slopes and channels act as natural filters to remove sediment, heavy metals and hydrocarbons. By improving the performance characteristics of natural vegetation, CONTECH TRMs have become a cost-effective and popular "green" alternative to paving, riprap and concrete linings for slopes and channels. Aesthetically pleasing green solutions and bioengineering provide designers flexibility in complying with today's stringent environmental laws and provisions of the Clean Water Act.

Table 1
CONTECH TEMPORARY DEGRADABLE EROSION BLANKETS[1]

CONTECH Erosion Control Products	Fiber Composition	Mass (Thickness)	Netting Details	Functional Longevity
SFB1	100% Straw	0.5 lb/sy (0.25")	Lightweight Plastic on 1 side	12 months
SFB2	100% Straw	0.5 lb/sy (0.25")	Lightweight Plastic on 2 sides	18 months
SCFB2	70% Straw 30% Coconut	0.5lb/sy (0.25")	Medium Weight Plastic Plastic on 2 sides	24 months
CFB2	100% Coconut	0.5 lb/sy (0.25")	Heavy Duty Plastic on 2 sides	36 months
EFB1	100% Aspen Wood	1 lb/sy (0.3")	Lightweight Plastic on 1 side	12 months
EFB2	100% Aspen Wood	1 lb/sy (0.3")	Medium Weight Plastic Plastic on 2 sides	18 months
EFB4	100% Aspen Wood	1.6 lbs/sy (0.4")	Heavy Duty Plastic on 2 sides—stitched	24 months
C-Jute	100% Photodegradable Polypropylene	0.14 lbs/sy N/A	Open Weave Material	12 months

1. Figures are typical values unless otherwise indicated.
2. Functional longevity represents an approximation of the product's life performance. Actual in-service functional longevity can vary widely due to extreme and diverse environmental factors. Contact your local CONTECH sales representative for additional guidance.
3. Biodegradable netting may be available upon special request. Contact your local CONTECH sales representative for availability.

Table 2
CONTECH PERMANENT SYNTHETIC TURF REINFORCEMENT MATS[1]

CONTECH Erosion Control Products	Mass (Thickness)	Tensile Strength (Enlongation)	Composition (Structure)
TRM C-35	8 oz/sy (0.35")	145 x 110 lbs/ft (50% max)	100% polypropylene (stitched, random matrix)
TRM C-45	10 oz/sy	170 x 125 lbs/ft (0.25")	100% polypropylene on 2 sides
TRM C-51[2]	14 oz/sy (0.50")	300 x 225 lbs/ft (85% max)	100% polypropylene (stitched, random matrix)
TRM C-60	14 oz/sy (0.60")	220 x 165 lbs/ft (40% max)	100% polypropylene (stitched, random matrix)
Pyramat® HP-TRM (0.50")	14 oz/sy (50% max)	4000 x 3500 lbs/ft	100% polypropylene (woven, three-dimensional)

1. Figures are typical values unless otherwise indicated.
2. Functional longevity represents an approximation of the product's life performance. Actual in-service functional longevity can vary widely due to extreme and diverse environmental factors. Contact your local CONTECH sales engineer for additional guidance.
3. Biodegradable netting may be available upon special request. Contact your local CONTECH sales representative for availability.

Erosion Control and Turf Reinforcement for Most Environments

Due to a wide range of engineering properties and performance capabilities, designers can custom match their project conditions to the most suitable CONTECH Turf Reinforcement Mat.

Grass Waterways, Channels and Slopes Applications

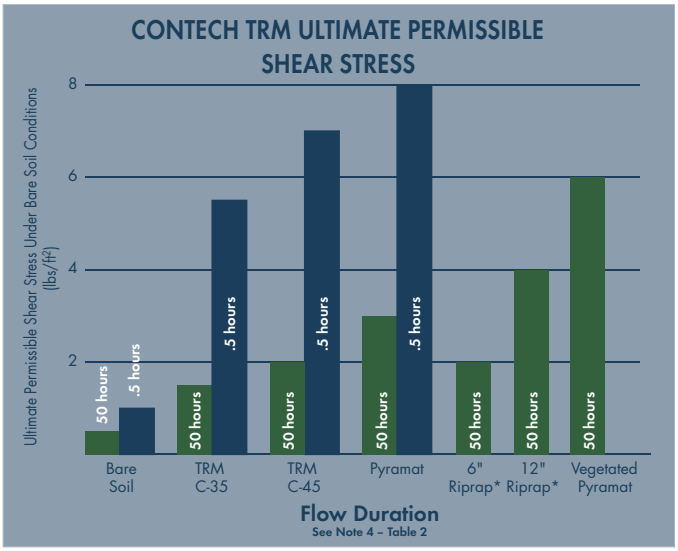
CONTECH TRM C-35, C-45 and C-60: These are dense, three-dimensional webs of UV-stabilized polypropylene fibers, randomly oriented and stitched together between two nets to impart high strength and stability. As indicated in Table 2, these products vary in mass and strength for different levels of performance.

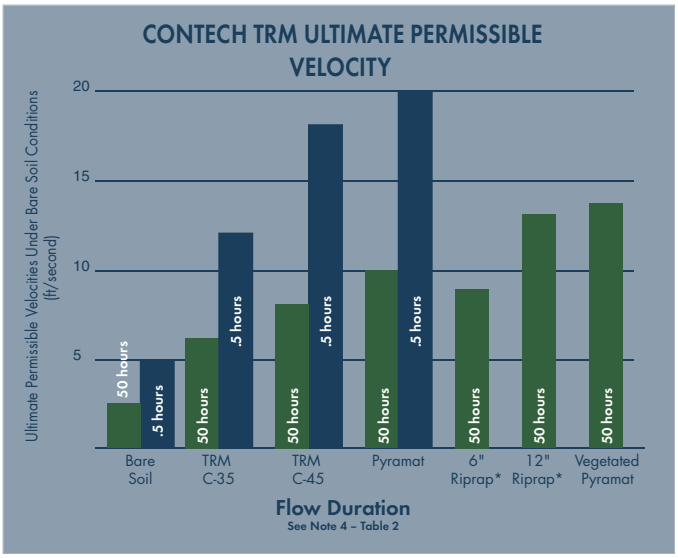
Channels and Slopes to Prevent Soil Transportation and Piping

CONTECH TRM C-51: This product is comprised of a dense three-dimensional web of black, UV-stabilized polypropylene fibers, randomly oriented, then stitched together between two nets and bonded to a nonwoven geotextile. It is designed for permanent applications in channels and slopes where soil transportation and piping is a primary concern.

High-Volume Channels and Steep Slopes

PYRAMAT® HP-TRM: This very high-strength, resilient, permanent, high-performance TRM consists of three-dimensional pyramid-like projections. It is designed for more severe applications such as high-volume channels and steep slopes or other installations requiring added safety factors and durability.





CONTECH TRMs reinforce vegetation to resist shear forces in high-flow channels. Vegetated TRMs can provide protection equal to 12" riprap under most environmental conditions.

CONTECH Silt Fence Controls Sediment

Uncontrolled silt deposits flowing from unprotected construction sites can create health, safety and environmental problems. Recent regulations, covering virtually every construction site today, mandate runoff-related sediment control.

CONTECH Silt Fence is a site-proven, effective and economical method to control runoff-carried sediment. Silt Fence offers a combination of UV resistance, strength and hydraulic properties to make them idea for use in above-ground sediment control applications.

CONTECH Silt Fence helps maintain overland sheet flow and filters out suspended soil particles, preventing downstream deposition and acting as a defensive erosion control practice.

Synthetic Engineering Solutions with Geotextiles

CONTECH offers the broadest range of high-quality geosynthetics available: woven and non-woven. CONTECH Geotextiles, with their high strength and defined filtration qualities, have a solid history of long-term performance in applications involving separation, filtration, drainage and erosion control.

Woven Geotextiles

Woven geotextiles are generally preferred for applications that need high strength properties, have less critical filtration requirements and do not require planar flow. Since woven textiles, on a unit weight basis, achieve higher strengths at lower elongations than non-woven geotextiles, they are extremely efficient in strength priority applications.

Non-Woven Geotextiles

Non-woven geotextiles are needle-punched, continuous filament engineering fabrics that provide filtration and planar flow, reduce hydrostatic pressure and prevent subsoil migration. Typical applications include subsurface drainage systems, roadway separation, hard armor underlayment and asphalt overlays.

CONTECH Offers a Variety of Other Erosion Control Solutions

Hard Armor Solutions for Channels, Streams and Shoreline Applications

The Armortec® family of products (including ArmorFlex®, A-Jacks®, ArmorWedge™ and ArmorLoc®) can be used to protect against erosion and scour in the most severe hydraulic conditions.

Modular Welded Wire Gabions for Erosion Control and Bank Stabilization

Modular Welded Wire Gabions are fabricated from steel wire mesh assembled into rectangular cells of varing size. They are filled with stone to form a monolithic, flexible structure which provides low cost, long-term erosion control and soil stabilization.

Cellular Confinement Systems Create an Erosion Barrier

Cellular Confinement Systems employ a flexible HDPE matrix filled with native granular materials to create an erosion barrier. These systems have been proven on a variety of construction, architectural, landscaping, and erosion control situations.

NPDES Regulations Require Immediate Action

The building boom of the past 25 years has increased stormwater runoff volumes and peak flows. The direct result of this growth are the requirements of the National Pollutant Discharge Elimination Systems Act (NPDES) that mandates that stormwater runoff be controlled to reduce damage to municipal sewers and waterways.

Stormwater doesn't just runoff. It carries pollutants, sediment and debris, contaminating the drainage system—which empties into streams, lakes and rivers, degrading water quality. Stormwater management issues are nationwide, and with the implementation of Phase II of NPDES, the issues will surface on nearly every construction site. Operators affected by Phase II are required to implement stormwater discharge management controls known as "Best Management Practices" or BMPs. Temporary and permanent erosion control solutions are recognized BMPs.

CONTECH Construction Products Inc. provides cost-effective solutions to soil erosion and sediment control problems.

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800.338.1122
www.contech-cpi.com

CONTECH Construction Products Inc. provides site solutions for the civil engineering industry. CONTECH's portfolio includes bridges, drainage, sanitary sewer, stormwater and earth stabilization products. For information on other CONTECH division offerings, visit contech-cpi.com or call 800.338.1122.

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