BW Geotextiles

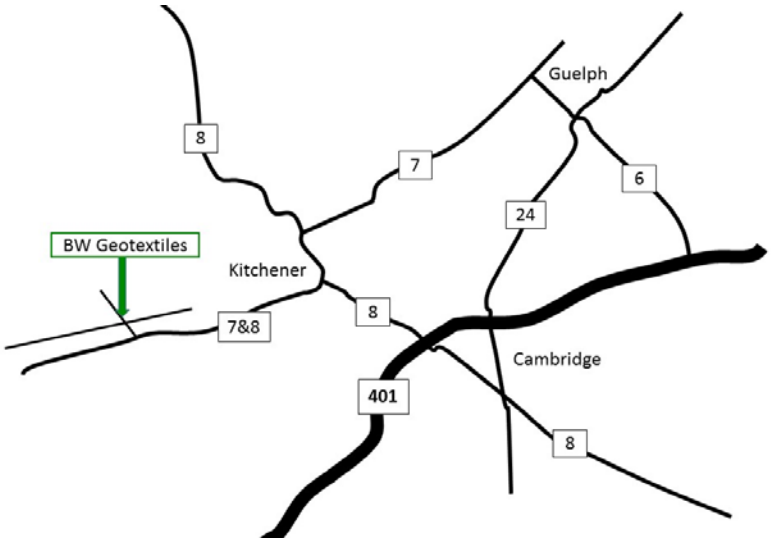
For all your geotextile needs since 1998

Phone: 519-778-1953
Toll Free: 1-844-778-1953
Fax: 519-634-5609
sales@bwgeotextiles.com
www.bwgeotextiles.com

BW Geotextile has been making superior quality products from its location in Petersburg, Ontario since 1989.Our goal is to give each customer personal service, the very best quality products at a reasonable price.

Most orders are filled in 24 to 48 hours. No order is too small or too large. Custom orders are welcome.

Our shop and warehouse is conveniently located just minutes west of Kitchener-Waterloo and 1km off highway 7 & 8. Call for delivery or pick up options.



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Wood Survey Stakes

Our wood grade stakes, survey stakes, tree stakes, landscaping stakes, forming stakes made from premium spruce lumber. 2" X 2" stakes have a uniform four sided point**.** Tree stakes can be pre-drilled for tie back application.

Custom orders of stakes with painted ends are available. The standard painted colour is florescent orange, red is available on request. For custom colour please call.

Standard	12	18	24	36	48	60	72	84	96
1" x 2"	O	X	X	X	X	X	O	O	O
2" x 2"	O	X	X	X	X	X	X	O	O
1" x 2" Orange Paint		O	X	X	O	O	O	O	O
2" x 2" Orange Paint		O	O	O	O	O	O	O	O

X = Stocked O = Available on request

1”x2” bundles come with 50 pcs.
2”x2” bundles come with 25 pcs.

Steel T-Post

Steel T-post can be used to support various types of wire or wire mesh. Made of quality steel for resiliency and strength, these high quality T-Posts assure stability in all soil types.

Standard stocked size:

- Green Light Duty (0.95lb/ft) - 6’ and 7’
- Brown Heavy Duty (1.25lb/ft) - 7’

Cedar Fence Posts

Round cedar fence posts are machine peeled. Various diameters and lengths available,

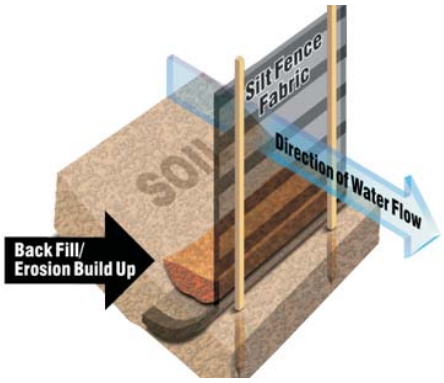
Ruff Sawn Spruce

3x3x8 ruff sawn spruce service marker posts. Painted end available, call for details.

Silt Fence

Silt fence is a temporary sediment control device used on construction sites to protect water quality in nearby storm drains streams, rivers and lakes from sediment (loose soil) in storm water runoff.

A typical fence consists of a piece of synthetic filter fabric (also called a geotextile) stretched between a series of wooden or metal fence stakes along a horizontal contour level. The stakes are installed on the downhill side of the fence, and the bottom edge of the fabric can be trenched into the soil and backfilled.



Custom logos are available to be printed on the fabric to increase your brand advertising.

Standard Stocked	55-11	55-14	LD MTO	HD MTO
Stakes	11	14	14	16
Stake length	4'	4'	4'	5'
Fabric	55 g/m^2	55 g/m^2	100 g/m^2	100 g/m^2
Fabric height	3' (0.92m)	3' (0.92m)	3' (0.92m)	3' (0.92m)
Roll length	100' (30.5m)	100' (30.5m)	98.4' (30m)	98.4' (30m)
Reinforcing geo-mesh				Yes
Road Authority Listed			OPSD219-110	OPSD219-130
Custom logos available	Yes	Yes	Yes	Yes

Other sizes and specs available on request, call for details

Wire Backed Silt Fence

Our Wire Backed Silt Fence uses 14-gauge welded wire that supports effective sediment control filter fabric. A variation on the traditional silt fence, wire backed silt fence protects storm water drainage systems from silt. This style provides rugged, reliable and low maintenance silt control.

Filter fabric is attached to this wire with C Rings along the top edge approximately every 18” and also along each end. Standard fabric is 48” wide with allows for a 10” apron to be placed in a trench and backfilled.

The fabric used is 100 g/m^2 silt fence is, this fabric meets MTO specs and is Road Authority approved.

Steel T-posts are normally used to support wire backed silt fence. They are usually placed at 6’ - 8’ spacing, or as specified. Wire or plastic ties are used to secure fencing to T-posts.

Standard Wire Backed Silt Fence with 48” fabric

- 4” x 4” opening 3’ x 100’
- 2” x 4” opening 3’ x 100’

Other fabrics and 48” wire available on request.

BW Geotextiles

WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 55SF

WINFAB 55SF is manufactured using high tenacity polypropylene yarns that are woven to form a dimensionally stable network, which allows the yarns to maintain their relative position.
WINFAB 55SF resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	Typical English	Typical Metric
Tensile Strength (Grab)	ASTM D-4632	65 x 65 lbs	289.3 x 289.3 N
Elongation	ASTM D-4632	15%	15%
CBR Puncture	ASTM D-6241	200lbs	890 x 890 N
Trapezoidal Tear	ASTM D-4533	35 x 35 lbs	155.75 x 155.75 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	30 US Std. Sieve	0.60 mm
Permittivity	ASTM D-4491	0.05 sec $^{-1}$	0.05 sec $^{-1}$
Water Flow Rate	ASTM D-4491	8 gpm/ft²	326 lpm/m2

*Maximum Average Roll Valve

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	24 in x 3300 yds 24 in x Custom 36 in x 3300 yds 36 in x Custom	.61 m x 3018 m .61 m x Custom .91 m x 3018 m .91 m x Custom

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WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 77SF

WINFAB 77SF is manufactured using high tenacity polypropylene yarns that are woven to form a dimensionally stable network, which allows the yarns to maintain their relative position.
WINFAB 77SF resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	100 x 100 lbs	444.8 x 444.8 N
Elongation	ASTM D-4632	15%	15%
CBR Puncture	ASTM D-6241	250lbs	1112.06 x 1112.06 N
Trapezoidal Tear	ASTM D-4533	50 x 50 lbs	222.41 x 222.41 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	30 US Std. Sieve	0.60 mm
Permittivity	ASTM D-4491	0.05 sec $^{-1}$	0.05 sec $^{-1}$
Water Flow Rate	ASTM D-4491	8 gpm/ft^2	326 lpm/m2

*Maximum Average Roll Value

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	36 in x 3300 yds 36 in x Custom 42 in x 3300 yds 42 in x Custom 48 in x 3300 yds 48 in x Custom	.91 m x 3018 m .91 m x Custom 1.07 m x 3018 m 1.07 m x Custom 1.22 m x 3018 m 1.22 m x Custom

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WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 100SF

WINFAB 100SF is manufactured using high tenacity polypropylene yarns that are woven to form a dimensionally stable network, which allows the yarns to maintain their relative position.
WINFAB 100SF resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	124 x 105 lbs	551.6 x 467.3 N
Elongation	ASTM D-4632	15%	15%
CBR Puncture	ASTM D-6241	300 lbs	1335 N
Trapezoidal Tear	ASTM D-4533	65 x 65 lbs	289.1 x 289.1 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	30 US Std. Sieve	0.60 mm
Permittivity	ASTM D-4491	0.05 sec $^{-1}$	0.05 sec $^{-1}$
Water Flow Rate	ASTM D-4491	10 gpm/ft^2	407.4 lpm/m2

*Maximum Average Roll Value

Notes:
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- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	36 in x 1200 yds 36 in x Custom 42 in x 1200 yds 42 in x Custom 48 in x 1200 yds 48 in x Custom	.91 m x 1097 m .91 m x Custom 1.07 m x 1097 m 1.07 m x Custom 1.22 m x 1097 m 1.22 m x Custom

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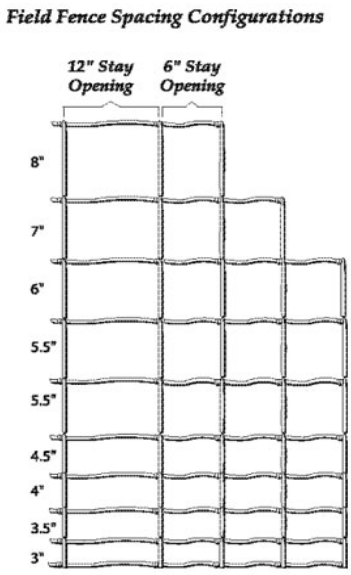
Farm Page Wire Fence

Page wire fence is made of tightly hinged joints that allow the fence to stretch and give over various terrain. Uniform crimps help to keep the fence tight through the season. Our field fence is designed using a variety of spacing configurations to accommodate your needs.

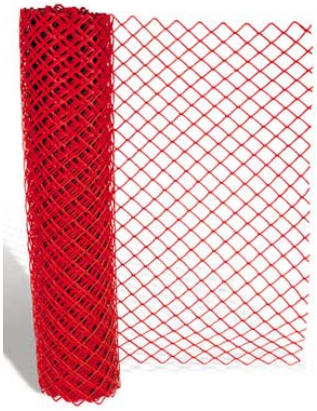
Standard stocked types (vertical strands are 12" apart with 10 horizontal wires):

- HD 1047-12-12 class 1. Top and bottom wire are 10 gauge, filler is 12.5 gauge
- LD 1047-12-14. Top and bottom wire are 11 gauge, filler is 14 gauge

Many other types of wire fencing are available on request.



Safety Fence



Made of high density polyethylene. Colours available are in international orange.

Safety Fence is an economical fence with multiple uses. This bright orange mesh fencing can be used to warm pedestrians of dangerous area, reduce wind swept debris at excavation, construction, and demolition sites, restrict access to off-limit areas, provides effective crowd control at sporting events, parades, and any event which attracts large numbers of people, mark courses at skiing completions and bicycle, cross country or motor cross races, delineate safe walkways, and mark the boundaries of athletic fields and play grounds. T-posts are most communally used to hold the fence up

Safety fence is stocked in standard rolls of 4' x 50', rolls of 4' x 100' are optional.

Wooden Snow Fence

Wooden Snow fence consists of wood slats woven together with five tow wire strands of galvanized wire. The snow fence is used to force snow to accumulate in a desired place. We supply the wooden snow fence for all applications, residential, highway, and commercial. The rolls come in 4' x 50' rolls.

Nonwoven Geotextiles

Nonwoven geotextiles are made from polypropylene fibres that are tangled together in a needle-punching process. The fibres may be made in continuous or short lengths and achieve their strength by interlocking. Nonwoven geotextiles have excellent water flow rates and are used for filtration of fine soil.

Nonwoven geotextiles have a wide range of applications in civil environmental engineering and construction projects. Their uses include:

- Filtration of soils in drainage applications by retaining soil particles while allowing for the free flow of water
- Separation and stabilization in road and railway construction
- Prevention of soil movement in erosion control measures
- Cushioning and protection in many containment projects

Nonwoven Geotextiles are available in varying strengths and thicknesses to ensure appropriate material selection for your project.

Standard Nonwoven Geotextiles	Equivalent To	Roll Size	
Winfab 310N 3.1 oz/yd^2	MX105, 200R	12'6" x 360'	500yd^2 or 418m^2
Winfab 400N 4 oz/yd^2	LP4 MX140 270R	3' x 100' 3' x 360' 4'2" x 360' 5' x 360' 6'3" x 360' 7'6" x 360' 12'6" x 360' 15' x 360'	33yd^2 or 27m^2 120yd^2 or 100m^2 167yd^2 or 140m^2 200yd^2 or 167m^2 250yd^2 or 209m^2 300yd^2 or 250m^2 500yd^2 or 418m^2 600yd^2 or 501m^2
Winfab 600N 6 oz/yd^2	LP6, MX225 360R	12'5" x 360' 15' x 300'	500yd^2 or 418m^2 500yd^2 or 418m^2
Winfab 800N 8 oz/yd^2	LP8, MX275, 420R	15' x 360'	500yd^2 or 418m^2
Winfab 1000N 10 oz/yd^2	MX340, 600R	15' x 360'	500yd^2 or 418m^3
Winfab 1200N 12 oz/yd^2	800R	15' x 360'	500yd^2 or 418m^4
Winfab 1600N 16 oz/yd^2	LP16, 1200R	15' x 360'	500yd^2 or 418m^5

For other comparisons see AppendixGeotextile Comparison Chart

Other nonwoven fabric weights also available call for details.

TYPAR Landscape Fabric

TYPAR Landscape Fabric is a unique, lightweight landscape fabric that blocks weeds while letting water and nutrients in. Made from a unique, spun bonded textile, TYPAR Landscape fabric is lightweight and easy to install. It does not tear, fray or puncture easily but is easily trimmed with a utility knife or shears.

Standard roll sizes (1.9 oz/yd^2):

- 4' x 300'
- 75" x 300'
- 3' x 25' (box of 30)
- 3' x 50' (box of 38)

WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 310N

WINFAB 310N is a needlepunched nonwoven geotextile manufactured using polypropylene fibers that are formed into a dimensionally stable network, which allows the fibers to maintain their relative position.
WINFAB 310N resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	80 x 80 lbs	355 x 355 N
Elongation	ASTM D-4632	50%	50%
CBR Puncture	ASTM D-6241	210 lbs	934 N
Trapezoidal Tear	ASTM D-4533	30 x 30 lbs	134 x 134 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	50 US Std. Sieve	0.30 mm
Permittivity	ASTM D-4491	2.2 sec^{-1}	2.2 sec^{-1}
Water Flow Rate	ASTM D-4491	150 gpm/ft^2	6112 lpm/m^2

*Maximum Average Roll Valve

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	12.5 x 360 ft 15 x 360 ft	3.81 x 109.8 m 4.6 x 109.8 m
Roll Area	500 yd^2 600 yd^2	418 m^2 502 m^2

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WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 350N

WINFAB 350N is a needlepunched nonwoven geotextile manufactured using polypropylene fibers that are formed into a dimensionally stable network, which allows the fibers to maintain their relative position.
WINFAB 350N resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	90 x 90 lbs	401 x 401 N
Elongation	ASTM D-4632	50%	50%
CBR Puncture	ASTM D-6241	260 lbs	1157 N
Trapezoidal Tear	ASTM D-4533	40 x 40 lbs	178 x 178 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	50 US Std. Sieve	0.30 mm
Permittivity	ASTM D-4491	2.0 sec^{-1}	2.0 sec^{-1}
Water Flow Rate	ASTM D-4491	150 gpm/ft^2	6112 lpm/m^2

*Maximum Average Roll Value

Notes:
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- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	12.5 x 360 ft 15 x 360 ft	3.81 x 109.8 m 4.6 x 109.8 m
Roll Area	500 yd^2 600 yd^2	418 m^2 502 m^2

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WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 400N

WINFAB 400N is a needlepunched nonwoven geotextile manufactured using polypropylene fibers that are formed into a dimensionally stable network, which allows the fibers to maintain their relative position.
WINFAB 400N resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	100 x 100 lbs	445 x 445 N
Elongation	ASTM D-4632	50%	50%
CBR Puncture	ASTM D-6241	310 lbs	1380 N
Trapezoidal Tear	ASTM D-4533	45 x 45 lbs	200 x 200 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	70 US Std. Sieve	0.212 mm
Permittivity	ASTM D-4491	2.0 sec^{-1}	2.0 sec^{-1}
Water Flow Rate	ASTM D-4491	140 gpm/ft^2	5704 lpm/m^2

*Maximum Average Roll Value

Notes:
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- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	12.5 x 360 ft 15 x 360 ft	3.81 x 109.8 m 4.6 x 109.8 m
Roll Area	500 yd^2 600 yd^2	418 m^2 502 m^2

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WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 450N

WINFAB 450N is a needlepunched nonwoven geotextile manufactured using polypropylene fibers that are formed into a dimensionally stable network, which allows the fibers to maintain their relative position.
WINFAB 450N resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	120 x 120 lbs	534 x 534 N
Elongation	ASTM D-4632	50%	50%
CBR Puncture	ASTM D-6241	335 lbs	1490 N
Trapezoidal Tear	ASTM D-4533	50 x 50 lbs	222 x 222 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	70 US Std. Sieve	0.212 mm
Permittivity	ASTM D-4491	1.8 sec $^{-1}$	1.8 sec $^{-1}$
Water Flow Rate	ASTM D-4491	120 gpm/ft^2	4889 lpm/m^2

*Maximum Average Roll Value

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	12.5 x 360 ft 15 x 360 ft	3.81 x 109.8 m 4.6 x 109.8 m
Roll Area	500 yd^2 600 yd^2	418 m^2 502 m^2

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PRODUCT DATA SHEET

WINFAB 600N

WINFAB 600N is a needlepunched nonwoven geotextile manufactured using polypropylene fibers that are formed into a dimensionally stable network, which allows the fibers to maintain their relative position.
WINFAB 600N resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	160 x 160 lbs	711 x 711 N
Elongation	ASTM D-4632	50%	50%
CBR Puncture	ASTM D-6241	410 lbs	1825 N
Trapezoidal Tear	ASTM D-4533	60 x 60 lbs	267 x 267 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	70 US Std. Sieve	0.212 mm
Permittivity	ASTM D-4491	1.5 sec $^{-1}$	1.5 sec $^{-1}$
Water Flow Rate	ASTM D-4491	110 gpm/ft^2	4482 lpm/m^2

*Maximum Average Roll Valve

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typcial Metric
Roll Dimensions	12.5 x 360 ft 15 x 300 ft	3.81 x 109.8 m 4.6 x 91.5 m
Roll Area	500 yd^2	418 m^2

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WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 800N

WINFAB 800N is a needlepunched nonwoven geotextile manufactured using polypropylene fibers that are formed into a dimensionally stable network, which allows the fibers to maintain their relative position.
WINFAB 800N resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	205 x 205 lbs	912 x 912 N
Elongation	ASTM D-4632	50%	50%
CBR Puncture	ASTM D-6241	525 lbs	2336 N
Trapezoidal Tear	ASTM D-4533	80 x 80 lbs	356 x 356 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	80 US Std. Sieve	0.18 mm
Permittivity	ASTM D-4491	1.4 sec^{-1}	1.4 sec^{-1}
Water Flow Rate	ASTM D-4491	90 gpm/ft^2	3667 lpm/m^2

***Maximum Average Roll Value**

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	12.5 x 360 ft 15 x 300 ft	3.81 x 109.8 m 4.6 x 91.5 m
Roll Area	500 yd^2	418 m^2

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WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 1000N

WINFAB 1000N is a needlepunched nonwoven geotextile manufactured using polypropylene fibers that are formed into a dimensionally stable network, which allows the fibers to maintain their relative position.
WINFAB 1000N resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	250 x 250 lbs	1113 x 1113 N
Elongation	ASTM D-4632	50%	50%
CBR Puncture	ASTM D-6241	625 lbs	2781 N
Trapezoidal Tear	ASTM D-4533	100 x 100 lbs	445 x 445 N
UV Resistance (500 Hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	100 US Std. Sieve	0.150 mm
Permittivity	ASTM D-4491	1.2 sec $^{-1}$	1.2 sec $^{-1}$
Water Flow Rate	ASTM D-4491	80 gpm/ft^2	3251 lpm/m^2

*Maximum Average Roll Valve

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	12.5 x 360 ft 15 x 300 ft	3.81 x 109.8 m 4.6 x 91.5 m
Roll Area	500 yd^2	418 m^2

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BW Geotextiles

WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 1200N

WINFAB 1200N is a needlepunched nonwoven geotextile manufactured using polypropylene fibers that are formed into a dimensionally stable network, which allows the fibers to maintain their relative position.
WINFAB 1200N resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	300 x 300 lbs	1335 x 1335 N
Elongation	ASTM D-4632	50%	50%
CBR Puncture	ASTM D-6241	825 lbs	3671 N
Trapezoidal Tear	ASTM D-4533	115 x 115 lbs	511 x 511 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	100 US Std. Sieve	0.150 mm
Permittivity	ASTM D-4491	1.0 sec^{-1}	1.0 sec^{-1}
Water Flow Rate	ASTM D-4491	75 gpm/ft^2	3055 lpm/m^2

*Maximum Average Roll Value

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	12.5 x 360 ft 15 x 300 ft	3.81 x 109.8 m 4.6 x 91.5 m
Roll Area	500 yd^2	418 m^2

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WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 1600N

WINFAB 1600N is a needlepunched nonwoven geotextile manufactured using polypropylene fibers that are formed into a dimensionally stable network, which allows the fibers to maintain their relative position.
WINFAB 1600N resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	380 x 380 lbs	1690 x 1690 N
Elongation	ASTM D-4632	50%	50%
CBR Puncture	ASTM D-6241	1025 lbs	4561 N
Trapezoidal Tear	ASTM D-4533	145 x 145 lbs	644 x 644 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	100 US Std. Sieve	0.150 mm
Permittivity	ASTM D-4491	0.7 sec^{-1}	0.7 sec^{-1}
Water Flow Rate	ASTM D-4491	50 gpm/ft^2	2037 lpm/m^2

*Maximum Average Roll Value

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	15 x 150 ft	4.6 x 45.75 m
Roll Area	250 yd^2	209 m^2

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Woven Geotextiles

Woven Geotextiles (monofilaments) are woven from round durable, high-modulus polypropylene yarns into competent, robust, dimensionally stable geotextiles. Woven monofilament geotextiles, are preferred for applications where both strength and filtration are a concern.

They perform the three primary functions of a geotextile: separation (separating the native subgrade from an aggregate layer); reinforcement (reinforcing an area by distributing weight over a wider area); and filtration (retaining soil while allowing the passage of water).

Woven geotextiles are available in varying tensile strengths and hydraulic properties to suit particular project demands.

Standard Woven Geotextiles			Equivalent To	Size	
Winfab	200#	Grab tensile 160lbs		12'6" x 432'	600yd^2 or 501m^2
Winfab	200W	Grab tensile 200lbs 890N	LP200, MXW9 24-15	12'6" x 432' 15' x 360'	600yd^2 or 501m^2 600yd^2 or 501m^2
Winfab	250W	Grab tensile 205lbs 1113N	LP250 200W	12'6" x 432' 15' x 360'	600yd^2 or 501m^2 600yd^2 or 501m^2
Winfab	315W	Grab tensile 315lbs 1400N	LP315, MXW13 400W	12'6" x 360' 15' x 300'	500yd^2 or 418m^2 500yd^2 or 418m^2

For other comparisons see AppendixGeotextile Comparison Chart

Other woven geotextiles and fabric weights are available call for details.

Horticultural Ground Cover

Horticultural Ground Cover provides moisture and weed control in greenhouses, outdoor areas and uncovered plantings. Ideal for Nurseries, Garden Centres and Homeowners alike.

Our fabrics provide easy installation, durability and uniform functionality. With a green strip every 12” it’s simple to line up your plants.

The most popular is 3.0 oz/yd^2 but several different kinds are available. A spec sheet for the 3.0 oz/yd^2 is on page 22.

Roll size: from 3' to 15' wide, all rolls are 300’ long.

BW Geotextiles

WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 200W

WINFAB 200W is manufactured using high tenacity polypropylene yarns that are woven to form a dimensionally stable network, which allows the yarns to maintain their relative position.
WINFAB 200W resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	200 x 200 lbs	890 x 890 N
Elongation	ASTM D-4632	15%	15%
CBR Puncture	ASTM D-6241	700 lbs	3114 N
Trapezoidal Tear	ASTM D-4533	75 x 75 lbs	330 x 330 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	40 US Std. Sieve	0.425 mm
Permittivity	ASTM D-4491	0.05 sec $^{-1}$	0.05 sec $^{-1}$
Water Flow Rate	ASTM D-4491	5 gpm/ft^2	204 lpm/m^2

*Maximum Average Roll Value

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	12.5 x 432 ft 15 x 360 ft 17.5 x 309 ft	3.81 x 131.7 m 4.6 x 109.7 m 5.3 x 94.2 m
Roll Area	600 yd^2	502 m^2

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WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 250W

WINFAB 250W is manufactured using high tenacity polypropylene yarns that are woven to form a dimensionally stable network, which allows the yarns to maintain their relative position.
WINFAB 250W resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	250 x 250 lbs	1113 x 1113 N
Elongation	ASTM D-4632	12%	12%
CBR Puncture	ASTM D-6241	750 lbs	3338 N
Trapezoidal Tear	ASTM D-4533	90 x 90 lbs	400 x 400 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	40 US Std. Sieve	0.425 mm
Permittivity	ASTM D-4491	0.05 sec $^{-1}$	0.05 sec $^{-1}$
Water Flow Rate	ASTM D-4491	4 gpm/ft^2	163 lpm/m^2

*Maximum Average Roll Valve

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	12.5 x 360 ft 15 x 300 ft 17.5 x 258 ft	3.81 x 109.8 m 4.6 x 91.5 m 5.3 x 78.7 m
Roll Area	500 yd^2	418 m^2

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WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 315W

WINFAB 315W is manufactured using high tenacity polypropylene yarns that are woven to form a dimensionally stable network, which allows the yarns to maintain their relative position.
WINFAB 315W resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	MARV English	MARV Metric
Tensile Strength (Grab)	ASTM D-4632	315 x 315 lbs	1402 x 1402 N
Elongation	ASTM D-4632	12%	12%
CBR Puncture	ASTM D-6241	900 lbs	4005 N
Trapezoidal Tear	ASTM D-4533	120 x 120 lbs	533 x 533 N
UV Resistance (500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	40 US Std. Sieve	0.425 mm
Permittivity	ASTM D-4491	0.05 sec^{-1}	0.05 sec^{-1}
Water Flow Rate	ASTM D-4491	4 gpm/ft^2	163 lpm/m^2

*Maximum Average Roll Valve

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	12.5 x 360 ft 15 x 300 ft 17.5 x 258 ft	3.81 x 109.8 m 4.6 x 91.5 m 5.3 x 78.7 m
Roll Area	500 yd^2	418 m^2

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WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINFAB 1510

WINFAB 1510 is manufactured using high tenacity polypropylene yarns that are woven to form a dimensionally stable network, which allows the yarns to maintain their relative position.
WINFAB 1510 resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	TEST METHOD	Typical English	Typical Metric
Fabric Color	-	Black	Black
Stripe Color (every 12 in)	-	Green	Green
Weight	ASTM D-3776	3 oz/yd²	101.7 g/m²
Thickness	ASTM D-1777	15 mils	.381 mm
Tensile Strength (Grab)	ASTM D-4632	175 x 115 lbs	778.5 x 512 N
Elongation	ASTM D-4632	24 x 20%	24 x 20%
CBR Puncture	ASTM D-6241	550 lbs	2446.5 N
Trapezoidal Tear	ASTM D-4533	75 x 60 lbs	330 x 267 N
UV Resistance (2500 hrs)	ASTM D-4355	70%	70%
Apparent Opening Size (AOS)*	ASTM D-4751	40 US Std. Sieve	0.425 mm
Water Flow Rate	ASTM D-4491	12 gpm/ft²	489.6 lpm/m²

*Maximum Average Roll Valve

Notes:
- Mullen Burst ASTM D-3786 has been removed. It is not recognized by ASTM D-35 on Geosynthetics.
- Puncture ASTM D-4833 has been removed. It is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D-6241

PROPERTY	Typical English	Typical Metric
Roll Dimensions	3 x 300 ft	.914 x 91.44 m
	4 x 300 ft	1.2 x 91.44 m
	6 x 300 ft	1.8 x 91.44 m
	10 x 300 ft	3.0 x 91.44 m
	12 x 300 ft	3.7 x 91.44 m
	15 x 300 ft	4.6 x 91.44 m

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Geogrid

Geogrids improve the structural integrity of soils in roadways, walls and slopes by reinforcing and confining fill materials and distributing load forces. Geogrids are the answer for designers, developers and contractors facing the challenges posed by sloping ground and soft subgrades.

In retaining wall and slope applications, geogrids can be combined with a wide variety of facing elements to produce the desired aesthetics for any project.

Standard stocked 2XT and 3XT Geogrids come in rolls measuring:
4' x 45' (2XT only) 6' x 150' and 12' x 150'.

5XT, 7XT are also available call for details.

Geogrids BX1100 (BX11), BX1200 (BX12) and others are available call for details. See next page for spec sheet.

2XT Data

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Tensile Strength (at ultimate)	ASTM D6637	lbs/ft (kN/m)	2000 (29.2)	2000 (29.2)
Creep Reduced Strength	ASTM D5262	lbs/ft (kN/m)	1266 (18.5)	
Long Term Allowable Design Load[1]	GRI GG-4(b)	lbs/ft (kN/m)	1096 (16.0)	

Physical Properties	Unit	Typical Value
Mass/Unit Area (ASTM D5261)	oz/yd^2 (g/m^2)	7.6 (258)
Roll Dimensions (width x length)	ft (m)	12 x 150 (3.6 x 46)
Roll Area	yd^2 (m^2)	200 (165)
Estimated Roll Weight	lbs (kg)	101 (46)

3XT Data

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value
			Machine Direction
Tensile Strength (at ultimate)	ASTM D6637	lbs/ft (kN/m)	3500 (51.1)
Tensile Strength (at 5% strain)	ASTM D6637	lbs/ft (kN/m)	1056 (15.4)
Creep Reduced Strength	ASTM D5262	lbs/ft (kN/m)	2215 (32.3)
Long Term Allowable Design Load[1]	GRI GG-4(b)	lbs/ft (kN/m)	1918 (28.0)

Physical Properties	Unit	Typical Value
Mass/Unit Area (ASTM D5261)	oz/yd^2 (g/m^2)	8.2 (278)
Roll Dimensions (width x length)	ft (m)	12 x 150 (3.6 x 46)
Roll Area	yd^2 (m^2)	200 (165)
Estimated Roll Weight	lbs (kg)	119 (54)

[1] NOTE: Allowable Long Term Strength values are for sand, silt and clay

WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINGRID BX11

WINGRID BX11 is a punched and drawn polypropylene geogrid product that is intergrally formed into a biaxial geogrid.
WINGRID BX11 resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	MARV English	MARV Metric
Aperture Dimensions[2]	1.0 x 1.3 in	25 mm x 33 mm
Minimum Rib Thickness[2]	.03 in x .03 in	.76 x .76 mm
Ultimate Tensile Strength[3]	850 x 1300 lbs/ft	12.4 x 19.0 kN/m
Tensile Strength at 2% Strain[3]	280 x 450 lbs/ft	4.1 x 6.6 kN/m
Tensile Strength at 5% Strain[3]	580 x 920 lbs/ft	8.5 x 13.4 kN/m
Junction Efficiency[4]	93%	93%
Flexural Stiffness[5]	250,000 mg-cm	250,000 mg-cm
Aperture Stability[6]	.32 m-N/deg	.32 m-N/deg
Resistance to Installation Damage[7]	95%SC/93%SW/90%GP	95%SC/93%SW/90%GP
Resistance to Long Term Degradation[8]	100%	100%
UV Resistance (500 hrs)[9]	100%	100%

Notes:

1. Unless notified otherwise, values shown are minimum average roll values determined in accordance with ASTM D4759-02. Brief descriptions of test procedures are given in the following notes.
2. Nominal dimensions.
3. True resistance to elongation when initially subjected to a load determined in accordance with ASTM D6637-01 without deforming test materials under load before measuring such resistance or employing "secant" or "offset" tangent methods of measurement so as to overstate tensile properties.
4. Load transfer capability determined in accordance with GRI-GG2-05 and expressed as a percentage of ultimate tensile strength.
5. Resistance to bending force determined in accordance with ASTM D5732-01, using specimens of width two ribs wide, with transverse ribs cut flush with exterior edges of longitudinal ribs (as a "ladder"), and of length sufficiently long to enable measurement of the overhang dimension.
6. Resistance to in-plane rotational movement measured by applying a 20 kg-cm (2 m-N) moment to the central junction of a 9 inch x 9 inch specimen restrained at its perimeter in accordance with the U.S. Army Corps of Engineers Methodology for measurement of Torsional Rigidity.
7. Resistance to loss of load capacity or structural integrity when subjected to mechanical installation stress in clayey sand (SC), well graded sand (SW), and crushed stone classified as poorly graded gravel (GP). The geogrid shall be sampled in accordance with ASTM D6637-01.
8. Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.
9. Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering in accordance with ASTM D4355-05.

PROPERTY	Typical English	Typical Metric
Roll Dimensions	12.95 x 246 ft	3.95 x 75 m

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WINFAB INDUSTRIAL FABRICS

PRODUCT DATA SHEET

WINGRID BX12

WINGRID BX12 is a punched and drawn polypropylene geogrid product that is intergrally formed in to a biaxial geogrid.
WINGRID BX12 resists ultraviolet deterioration, rotting, and biological degradation and is inert to commonly encountered soil chemicals.

PROPERTY	MARV English	MARV Metric
Aperture Dimensions[2]	1.0 x 1.3 in	25 mm x 33 mm
Minimum Rib Thickness[2]	.05 in x .05 in	1.27 x 1.27 mm
Ultimate Tensile Strength[3]	1310 x 1970 lbs/ft	19.2 x 28.8 kN/m
Tensile Strength at 2% Strain[3]	410 x 620 lbs/ft	6.0 x 9.0 kN/m
Tensile Strength at 5% Strain[3]	810 x 1340 lbs/ft	11.8 x 19.6 kN/m
Junction Efficiency[4]	93%	93%
Flexural Stiffness[5]	750,000 mg-cm	750,000 mg-cm
Aperture Stability[6]	.65 m-N/deg	.65 m-N/deg
Resistance to Installation Damage[7]	95%SC/93%SW/90%GP	95%SC/93%SW/90%GP
Resistance to Long Term Degradation[8]	100%	100%
UV Resistance (500 hrs)[9]	100%	100%

Notes:

1. Unless notified otherwise, values shown are minimum average roll values determined in accordance with ASTM D4759-02. Brief descriptions of test procedures are given in the following notes.
2. Nominal dimensions.
3. True resistance to elongation when initially subjected to a load determined in accordance with ASTM D6637-01 without deforming test materials under load before measuring such resistance or employing "secant" or "offset" tangent methods of measurement so as to overstate tensile properties.
4. Load transfer capability determined in accordance with GRI-GG2-05 and expressed as a percentage of ultimate tensile strength.
5. Resistance to bending force determined in accordance with ASTM D5732-01, using specimens of width two ribs wide, with transverse ribs cut flush with exterior edges of longitudinal ribs (as a "ladder"), and of length sufficiently long to enable measurement of the overhang dimension.
6. Resistance to in-plane rotational movement measured by applying a 20 kg-cm (2 m-N) moment to the central junction of a 9 inch x 9 inch specimen restrained at its perimeter in accordance with the U.S. Army Corps of Engineers Methodology for measurement of Torsional Rigidity.
7. Resistance to loss of load capacity or structural integrity when subjected to mechanical installation stress in clayey sand (SC), well graded sand (SW), and crushed stone classified as poorly graded gravel (GP). The geogrid shall be sampled in accordance with ASTM D6637-01.
8. Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.
9. Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering in accordance with ASTM D4355-05.

PROPERTY	Typical English	Typical Metric
Roll Dimensions	12.95 x 164 ft	3.95 x 50 m

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Straw and Coconut Blankets

Erosion control blankets prevent surface erosion and form an immediate form of cover, functioning as a barrier against both the detachment and transportation phase of erosion process until vegetation or reinforced vegetation assume this function. A single or double net is then stitched to the topside or both sides. The blankets are lightweight and easy to handle, a variety of nettings are available depending on your project requirements.

Below are standard blankets. Rolls are 100 yd^2 or 84 m2
Many other erosion control blankets are available, call for details.

Property	Single Net Straw	Double Net Straw	Double Net Straw / Coconut	Double Net Coconut
Matrix Color	Natural	Natural	Natural	Natural
Netting	Top Only	Top and Bottom	Top and Bottom	Top and Bottom
Netting Type	Synthetic	Synthetic	Synthetic	Synthetic
Net Degradability	Regular	Regular	Regular	Regular
Stitching	Synthetic	Synthetic	Synthetic	Synthetic
Stitch Spacing	2" On Center	2" On Center	2" On Center	2" On Center
Matrix	100% Weed Free Straw	100% Weed Free Straw	70% Coconut, 30% Straw	100% Coconut
Degradability	Complete	Complete	Complete	Complete
Degradability Mechanism	Photodegradable/ Biodegradable	Photodegradable/ Biodegradable	Photodegradable/ Biodegradable	Photodegradable/ Biodegradable
Unit Weight	8.0 oz/yd^2 (271 g/m^2)	8.0 oz/yd^2 (271 g/m^2)	8.9 oz/yd^2 (302 g/m^2)	9.5 oz/yd^2 (322 g/m^2)
Thickness	0.28 in (7 mm)	0.28 in (7 mm)	0.34 in (9 mm)	0.26 in (7 mm)
Tensile Strength (MD)	4.8 lb/in (0.8 kN/m)	10.0 lb/in (1.8 kN/m)	13.0 lb/in (2.3 kN/m)	18.4 lb/in (3.2 kN/m)
Tensile Strength (TD)	4.8 lb/in (0.8 kN/m)	6.2 lb/in (1.1 kN/m)	10.7 lb/in (1.9 kN/m)	12.7 lb/in (2.2 kN/m)
Coverage	22% open	22% open	10% open	15% open
Available Widths	7.5 - 16.0ft (2.3 - 4.9m)	7.5 - 16.0ft (2.3 - 4.9m)	7.5 - 16.0ft (2.3 - 4.9m)	7.5 - 16.0ft (2.3 - 4.9m)
Available Lengths	112.5 - 450ft (34.3 - 137.2m)	112.5 - 450ft (34.3 - 137.2m)	112.5 - 450ft (34.3 - 137.2m)	112.5 - 450ft (34.3 - 137.2m)
Nominal Longevity	12 Months	12 Months	24 Months	36 Months

Recyclex

Recyclex - the first permanent turf reinforcement mat (TRM) with fibers made from 100% recycled post-consumer goods - "green or brown bottles". There are approximately 20 bottles in every pound of Recyclex TRMs.

80% or more of Recyclex fibers are 5 inches in length or greater. The fibers are crimped to allow a strong, curled, interlocking fiber matrix**.**

The crimped fibers conform to terrain details and train water flow to follow the Recyclex curled fiber matrix. In turn, water flow velocity is reduced. Recyclex fibers have a specific gravity of greater than one, meaning the matrix will not float in a hydraulic event. Recyclex fibers are stitched together by two strong layers of UV resistant polypropylene netting to form a three dimensional matrix that is designed to provide permanent surface support for vegetation and structural root systems. Recyclex can be installed as an erosion control blanket by placing it over grass seed and topsoil or it can be soil filled and seeded to allow a structural root system to grow directly into the permanent turf reinforcement matting.

	TRM	TRM-V
Width:	8.0 ft (2.4 m) or 16.0 ft (4.9 m)	8.0 ft (2.4 m) or 16.0 ft (4.9 m)
Length:	90.0 ft (27.4 m)	112.5 ft (34.3 m)
Area:	80.0 yd^2 (66.9 m^2) or 160.0 yd2 (133.8 m^2)	100.0 yd^2 (83.6 m^2) or 200.0 yd2 (167.2 m^2)
Weight:	50.0 lb (22.7 kg) or 100.0 lb (45.4 kg)	50.0 lb (22.7 kg) or 100.0 lb (45.4 kg)
Color:	Green or Brown	Green or Brown

Index Property	TRM	TRM-V
Mass Per Unit Area	.63 lb/yd^2 (342 g/m^2)	.50 lb/yd^2 (271 g/m^2)
Thickness	.37 in (9.4 mm)	.29 in (7.5 mm)
Light Penetration	55%	57%
Resiliency	85%	86%
MD Tensile Strength Max	387.6 lb/ft (5.7 kN/m)	295.2 lb/ft (4.3 kN/m)
TD Tensile Strength Max	340.8 lb/ft (5.0 kN/m)	194.4 lb/ft (2.9 kN/m)
MD Elongation	21.20%	32.20%
TD Elongation	20.30%	40.80%
Ultraviolet Stability	90% (min.)	80% (min.)
Fiber Memory	95%	95%
Specific Gravity	1.28	1.21
Porosity	97.6%	97.5%

Sod Staples

Sod Staple or Ground Clips are used to hold Sod, Ground Cloth, Landscaping Material Fabrics, and wide range of other products in place. Staples are 6” long and come in boxes of 1000.

Curlex

Curlex fibers have a unique ability to expand and contract when wet and when combined with "barbed" fibers, Curlex fibers actually CLing to each other. Curlex provides performance and vegetation establishment benefits superior to straight lined fiber blankets such as straw. Curlex offers the best of both worlds - all the unique benefits of the time proven Curlex fiber and a competitive price. Curlex is your new solution to basic single net and double net ECB applications.

Curlex blankets are designed with a built-in swell factor - wet curled excelsior fibers slightly expand in thickness and interlock to form a strong fiber matrix. This allows the fibers to provide intimate contact with local terrain. Curlex blankets consist of unique softly barbed, interlocking, curled, Aspen excelsior fibers. They are naturally seed free. Curlex blankets are available with a variety of environmentally sensitive and/or stronger netting types to match job site requirements

	Curlex Single Net (Curlex I)	Curlex Double Net (Curlex II)
Recommended Use:	Slopes to 2:1; Channels to 7 ft/s, shear stress to 1.75 lb/ft^2	Slopes to 1.5:1; Channels to 9 ft/s, shear stress to 2.25 lb/ft^2
Roll Sizes:	4' x 112.5' (50 yd^2)	4' x 112.5' (50 yd^2)
	8' x 112.5' (100 yd^2)	8' x 112.5' (100 yd^2)
	16' x 112.5' (200 yd^2)	16' x 112.5' (200 yd^2)
Weight*:	.73 lb/yd^2	.73 lb/yd^2
Netting Options:	Green, White (90 day), FibreNet	Green, White (90 day), FibreNet
Color:	Natural Aspen or Green	Natural Aspen or Green

Curlex Logs

Curlex Sediment Logs use fibers to reduce sediment-laden runoff. Water filters through the diameter of the porous, interlocked fiber log matrix. As it does, velocity is naturally reduced and sediment is collected on the upstream side of the excelsior fiber log. Install Sediment Logs over bare soil and/or biodegradable & permanent erosion control blankets, on steep slopes as a wattle, around drains for inlet protection, or around job sites for perimeter control. Functional Longevity is about 24 months.

	Type I	Type II	Type III	Type IV
Nominal Diameter	50 cm (20 in)	30 cm (12 in)	23 cm (9 in)	15 cm (6 in)
Minimum Diameter	45.7 cm (18.0 in)	27.9 cm (11.0 in)	20.3 cm (8.0 in)	14.0 cm (5.5 in)
Length (±10%)	3.1 m (10 ft)	3.1 m (10 ft)	7.6 m (25 ft)	7.6 m (25 ft)
Weight (±10%)	13.6 kg (30 lb)	9.1 kg (20 lb)	11.3 kg (25 lb)	5.4 kg (12 lb)
Density (±10%)	22.00 kg/m^3 (1.38 lb/ft^3)	40.08 kg/m^3 (2.54 lb/ft^3)	36.26 kg/m^3 (2.26 lb/ft^3)	39.15 kg/m^3 (2.44 lb/ft^3)
Net Opening	3.2cm (1.3")	2.5 cm (1")	1.9 cm (0.75 ")	1.3cm (0.5")
% Soil Retained	70.3	70.3	53.9	53.9

Straw Wattles & Sediment Logs

Straw Wattles & Sediment Logs are commonly known as erosion logs, fiber logs or Aspen fiber wattles. Straw wattles are used to slow overland flow and fragment slope lengths. Straw wattles are permeable barriers used to detain surface runoff long enough to reduce flow velocity. The materials used in erosion wattles and logs allow water to flow through the device while capturing runoff sediments.

This erosion solution is created by filling tubes of UV stabilized geotextile netting (biodegradable netting is also available) with straw and /or coconut. They are an effective and economical alternative to silt fence and straw bales for sediment control and storm water runoff. Fertile topsoil, organic matter, and native seeds become trapped behind straw wattles, providing a stable medium for germination.

Advantages:

- Increased weight per linear foot for less resistance to movement from wind, water, and sediment
- Replaces silt fence or straw bales on steep slopes and lasts up to two years
- Stores moisture for vegetation planted immediately up-slope
- Can be staked with fascines to stabilize low-velocity stream banks and establish wetland plants

Various sizes available – call for details.

Property	9" Straw Log	12" Straw Log	18" Straw Log
Log Diameter	9 in (0.23 m)	12 in (0.30 m)	18 in (0.46 m)
Log Length	10 ft (3.0 m) - 25 ft (7.6 m)	10 ft (3.0 m) - 25 ft (7.6 m)	10 ft (3.0 m) - 25 ft (7.6 m)
Matrix Type	100% Weed Free Straw	100% Weed Free Straw	100% Weed Free Straw
Weight/Length	1.4 lbs/ft (2.1 kg/m)	2.5 lbs/ft (3.7 kg/m)	3.5 lbs/ft (5.2 kg/m)
Density	3.3 lbs/ft^3 (52.3 kg/m^3)	3.3 lbs/ft^3 (53.0 kg/m^3)	1.7 lbs/ft^3 (33.5 kg/m^3)
Netting Type	UV Stable, Synthetic	UV Stable, Synthetic	UV Stable, Synthetic

Burlap

Burlap is a woven fabric usually made from skin of the jute plant or sisal fibres or may be combined with other vegetable fibres to make blankets, rope, nets, and similar products. This product is used mostly to wrap shrubs but can be used for erosion control on slopes as well.

Standard rolls available in 5oz or 7oz:

- 40” x 300’
- 72” x 300’

Other roll sizes are available please call for details.

Coir Logs

Coir logs are filled with 100% natural coir (coconut husk fibre) mattress fibres. Standard design of the coir log features a strong coir twine outer netting that surrounds a mixture of mattress coconut coir.

Coir Logs are a completely biodegradable erosion control option for slope and channel stabilization, banks, shorelines, and other erosion prone areas. Easy to place, use, and install, these logs create a natural control area that helps establish growth and control erosion.

Features of Coir Mats and Logs:

- High tensile strength and durability makes it suitable for the most severe erosion control problems
- 2 - 5 years longevity to allow for full vegetation establishment
- Absorbs water and acts as mulch on the surface as well as a wick in the soil mantle.
- Open mesh construction provides an excellent opportunity for the growth of vegetation
- Adds fertility to soil after biodegradation and accelerates development of aquatic/riparian habitat
- Traps sediments and encourages deposition
- Provides effective erosion control of steep slopes and high velocity flow channels
- 2”x2” stakes used to keep in place see Wood Survey Steaks on page 1

Standard size - 12” x 7’6”

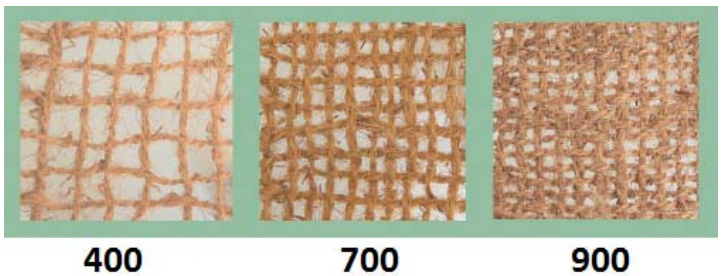
Coir Yarn

Coir yarn or mats are made of coconut husk which is 100% natural and biodegradable. When place on slopes it can slow the discharge of water and is excellent at reducing soil erosion. Extremely flexible, lightweight, easy to stake, and can be installed quickly on any uneven surface.

They yarn has a moisture absorption factor of 9 time its dry weight. This retention in water help the soil remain moist and promotes healthy growth of vegetation through the fabric. Removal is not necessary as it is typically left in place permanently to biodegrade.

Coir Yarn comes 2m x 50m in compressed bails in 3 types:

- 400g / m^2
- 700g / m^2
- 900g / m^2



Turbidity Curtain

Turbidity curtains or Floating Silt curtains are a floating curtain that acts as a floating sediment barrier. This curtain is designed to prevent the spread of silt and sediment in lakes and other water bodies when work is being performed in water, or on or near the shoreline.
Custom sizing is available on request.

We have access to a large and diverse inventory of Turbidity curtains to respond to your needs.

Standard Models	TC1	TC2	TC4	TC6
Depth	1.12m	2.1m	4m	5.8m
Length	15m	15m	15m	15m
Weight (without ballast)	9kg	15kg	20kg	25kg
Weight (with ballast)	32kg	38kg	43kg	48kg

Custom sizes available please call for details.

Cofferdams

A cofferdam is a temporary structure that retains water and soil that allows the enclosed area to be pumped out and excavated dry.

This system works well because the cofferdam can be built to any configuration, and its height can be varied to accommodate variable river depths and extremely irregular river beds. Cofferdams have proven to be a cost effective product to stop water flow in a work area.

The system uses large 1 ton bags that are filled with clean gravel and positioned to form a cofferdam that isolates the work area.

Geomembrane can be wrapped around the outside the cofferdam to further seal the work area off from water.

Other options for blocking water flow are also available please call for details.

Sod Staples

Sod Staple or Ground Clips are used to hold Sod, Ground Cloth, Landscaping Material Fabrics, and wide range of other products in place. Staples are 6” long and come in boxes of 1000.

Dewatering Bags / Enviro bags

Dewatering bags, fabricated from geotextile material, filter sediment-laden water from construction sites. As site water is pumped into the bag, much of the sediment is retained by the geotextile fabric allowing filtered water to pass through.

It is designed to filter water as it is pumped from a storage site, removing hazardous materials such as silt before they can damage the environment. Once fully drained, The Silt Bag and its contents can be disposed of as a solid waste, an economical alternative to waste water or sludge disposal. The contents of the Silt Bag can also be returned to the soil on your site, eliminating waste disposal costs altogether.

Dewatering bags are portable, easy to install and remove and are available in 3 standard sizes and custom sizes on request.

Standard stocked size:

- 3.8m x 5m (12.5' x 16.4')
- 3.8m x 10m (12.5' x 32.8')
- 3.8m x 15m (12.5' x 49.2')

Custom sizes on request

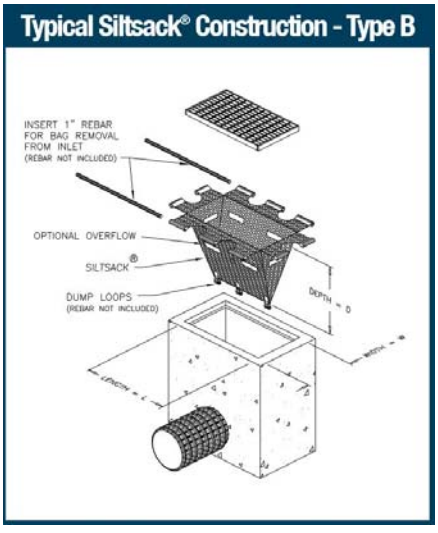
Sand Bags

Our woven polypropylene sandbags come complete with heavy polytwine ties. They are available in white (1600 hr. UV protection) and bright orange (1600 hr. UV protection) for increased visibility.

18" x 27" weighing approx. 75 pounds when filled,
bundles of 100,
bales of 1000

Catch Basin Silt Sacks

Silt sacks are a simple and cost-effective solution to prevent clogging of catch basins. Silt sacks are a temporary, below the grate catch basin filter secured by the catch basin grate. Silt sacks allow storm water to flow through the drainage system while capturing sediment, trash, and debris.



Silt sacks can be used as a primary or a secondary sediment control device to prevent failure of drainage system due to clogging with sediment. Silt sack can be emptied and re-used for the life of the construction project

Available in two styles:

- 2' x 2' x 3'
- 2' x 4' x 3'

Grass Pavers or Porous Grid Pavers

Grass pavers are a ground reinforcement paving grid system. The grids inter-connect with each other to provide a very strong stable surface capable of withstanding heavy vehicle loads. The porous paving grids can be filled with gravel, grass or a soil to provide a gravel or a natural grass surface. Applications include regularly trafficked areas (pedestrian and vehicles), overflow grass parking lots, golf cart paths, grass fire truck lanes, wheelchair / handicap paths and grass driveways. Grass pavers can be installed with either a grass or gravel filled surface depending on the application required.

Available in 2' x 2' sections.

Geocell

Geocells are engineered for protection and stabilization applications. Geocell products are three-dimensional, expandable panels made from high-density polyethylene (HDPE), polyester or another polymer material

Geocell is a relatively shallow cellular confinement system which is used to for an eco-friendly foundation or to combat erosion on slopes up to 1:1. The geocell is fabricated using a geotextile so it is permeable and allows water to flow between cells encouraging drainage and vegetation. It is supplied as compact man-handleable panels ready to be expanded. Once placed and secured on the slope, the geocell can be filled with soil or a mineral fill. The result is that the confined fill is able to better resist the erosive effects of wind and run-off.

The geocell is flexible enough to be formed around trees and other obstacles. Seeded topsoil is the most suitable fill for less-exposed slopes, with small shrubs offering improved protection, a granular material offers the highest protection.

Cell Depth	Expanded Width	Expanded Length	Area
4" / 5" / 6"	8.4'	21.4'	180sq ft
100mm / 150mm /200mm	2.56m	6.5m	16.64 m2

EPDM Rubber Liners

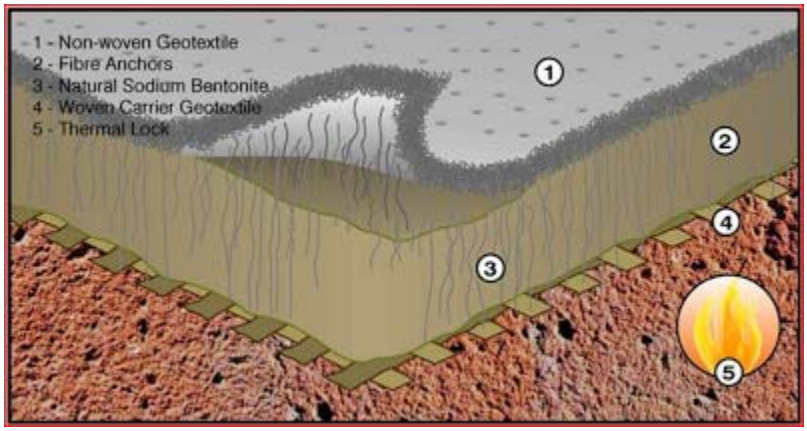
An Ethylene Propylene Diene Monomer is an extremely durable synthetic rubber membrane with a proven performance history in exposed applications. EPDM is a top choice for lake and pond liners, cofferdams, canals, water features and some flat roofs. EPDM rubber is very resistance to punctures and there for has a high tensile strength. It also resists weathering, UV rays, and microbial attacks.

Rubber can be cut from 10' x 10' to 50' x 100'.
Different thickness and custom sizes are available.

Geosynthetic Clay Liner

Geosynthetic Clay Liners (GCLs) are needle-punched reinforced composites which combine two durable geotextile outer layers with a uniform core of natural sodium bentonite clay to form a hydraulic barrier. The sodium bentonite clay utilized in GCL is a naturally occurring clay mineral that swells as water enters between its clay platelets. When hydrated under confinement, the bentonite swells to form a low permeability clay layer with the equivalent hydraulic protection of several feet of compacted clay. GCLs are produced by distributing a uniform layer of the sodium bentonite between two geotextiles.

Benefits include easier installation and more useable air-space in landfill applications. GCLs also have unique self-sealing attributes, reducing the risk of failure due to adverse field and operating conditions.



Appendix

GEOTEXTILE COMPARISON CHART

NON WOVEN GEOTEXTILE

Winfab	310N	350N	400N	450N	600N	800N	1000N	1200N	1600N
Amoco	4535	4545	4546	4547	4551	4553	4510		4516
Armtec	140	150	160	170	200		300		400
Carthage	FX30HS	FX35HS	FX40HS	FX45HS	FX60HS	FX80HS	FX100HS	fx120HS	FX160HS
Contech	C-31NW	C-35NW	C-40NW	C-45NW	C-60NW	C-80NW	C-100NW	C-120NW	C-160NW
Hanes	NO3	NO4.5	SD	NO4.5	NO6	NO8	N10	N12	N16
Layfield		LP 3.5	LP 4	LP 4.5	LP 6	LP 8			LP 16
Linq	120EX	125EX	130EX	140EX	150EX	180EX	250EX	275EX	350EX
Maccaferri	MX105	MX120	MX 140	MX 155	MX 225	MX 275	MX 340		
Mirafi	135N	140 NL	140 NC	140 N	160 N	180 N	1100 N	1120N	1160 N
Propex	311	351	401	451	601	801	1001	1201	1601
Skaps	GT 131	GT 135	GT 140	GT 142	GT 160	GT 180	GE 110		GE 116
Synthetic	311	351	401	451	601	801	1001		1601
Terrafix	200R	240R	270R	300R	360R	420R	600R/370RS	800R	1200R
TNS	R 031	R 035	R 040	R 042	R 060	R 080	R 100		R 160
Webtech	N 03	N 04	SD N 04.5	N 06	N 08	N 10	N 16		GS-150

WOVEN GEOTEXTILE

Winfab	200W	250W	315W
Amoco	2002		2006
Armtec	835		855
Carthage	FX-55	FX-60	FX-66
Contech	C-200	C-250	C-300
Hanes	GS	GS-250	HD
Layfield	LP-200	LP-250	LP-315
Linq	GTF200	GTF250	GTF300
Maccaferri	MXW9		MXW13
Mirafi	500 X	550X	600 X
Propex	20ST	250ST	315ST
Skaps			
Synthetic	200 ST		315 ST
Terrafix	24-15	200W	400W
TNS	W200		W300
Webtech	HD		

Shaded items are non- stocked and require extra lead time, call for details