

BID TABULATION - 2016 EROSION CONTROL AND GEOSYNTHETIC MATERIALS

EROSION CONTROL AND GEOSYNTHETIC MATERIALS BID OPENING 12-29-2015	MISSOURI PETROLEUM PRODUCTS	ASP ENTERPRISES	NUWAY CONCRETE FORMS INC
	1620 WOODSON RD ST LOUIS MO 63114	1099 CASSENS IND. CT. FENTON MO 63026	4190 HOFFMEISTER AVE ST LOUIS MO 63125
MINIMUM DELIVERY REQUIRED	NO	NO	NO
ADDITIONAL SUPPLIER FEES		\$0.00	\$5.00 DELIVERY FEE
APPROXIMATE TIME REQUIRED FOR DELIVERY FROM TIME OF ORDER	1 - 2 DAYS	1 - 2 DAYS	1 - 2 DAYS
TIME REQUIRED FOR ORDER OF MATERIALS YOU DO NOT STOCK FROM TIME OF ORDER	7-10-DAYS	7-10-DAYS	7-10-DAYS
FOR PARTS PICKED UP AT YOUR LOCATION, HOW MANY MILES FROM HILLSBORO LOCATION TO YOUR SUPPLY DOCK	47 MILES	24 MILES	35.9 MILES
REGULAR BUSINESS HOURS	7 AM - 3 PM	7:00 AM - 5:00 PM MON - FRI	MON - FRI 7:00 - 5:00 SAT 8:00 - 12:00
SUPPLIES CATEGORY	MISC. GEOTEXTILES	GEOTEXTILE FABRIC	NON WOVEN FILTER FABRIC
PRICING OFFERED	CONTRACTOR	CONTRACTOR	LIST
DISCOUNT	NONE	NONE	10% OFF LIST
SUPPLIES CATEGORY	HIGH STRENGTH WOVEN GEOTEXTILES	GEOGRID	WOVEN FILTER FABRIC
PRICING OFFERED	CONTRACTOR	CONTRACTOR	LIST
DISCOUNT	NONE	NONE	10% OFF LIST
SUPPLIES CATEGORY	GEOGRIDS (BIAXIAL)	EROSION CONTROL BLANKET	SILT FENCING
PRICING OFFERED	CONTRACTOR	CONTRACTOR	LIST
DISCOUNT	NONE	NONE	10% OFF LIST
SUPPLIES CATEGORY	WATERPROOFING MEMBRANES	SEDIMENT CONTROL	STRAW WATTLE/TRUE DAM
PRICING OFFERED	CONTRACTOR	CONTRACTOR	LIST
DISCOUNT	NONE	NONE	10% OFF LIST
SUPPLIES CATEGORY		MISC GEOSYNTHETICS	STRAW
PRICING OFFERED		CONTRACTOR	LIST
DISCOUNT		NONE	10% OFF LIST
REQUIRED DOCUMENTS			
NOTARIZED WORK AFFIDAVIT COMPLETED	Y	N	N
E-VERIFICATION DOCUMENTATION (Y/N):	N	N	N
COPY OF INSURANCE PROVIDED	Y	N	N
TAX RECEIPTS OR NOTARIZED LETTER STATING NO REAL OR PERSONAL PROPERTY OWNED IN JEFFERSON COUNTY	Y	N	N
COOPERATIVE BID FORM (Y/N)	Y	Y	Y
COOPERATIVE CONTACT INFO:	Y	Y	Y
COMPANY INFORMATION AND SIGNATURE	Y	Y	Y
BID DEPOSIT REQUIRED	N/A	N/A	N/A
COMMENTS:	SEE ATTACHED	SEE ATTACHED	SEE ATTACHED



JEFFERSON COUNTY
DEPARTMENT OF ADMINISTRATIVE SERVICES
729 MAPLE ST / PO BOX 100
HILLSBORO MO 63050
WWW.JEFFCOMO.ORG

Invitation for Bid: 2016 EROSION CONTROL AND GEOSYNTHETIC MATERIALS

Date Issued: 11-25-15

BIDS SHALL BE ACCEPTED UNTIL: TUESDAY, DECEMBER 29, 2015, AT 2:00 P.M. LOCAL TIME.

**Specification
Contact:**

KURT WENGERT
Department of Public Works
636-797-5427
kwengert@jeffcomo.org

**Contract
Contact:**

VICKIE PRATT
Department of Administrative Services
636-797-5380

**Mail (3) Three
Complete Copies
With Vendor And
Bid Information As
Shown In Sample:**

SAMPLE ENVELOPE

VENDOR NAME	
VENDOR ADDRESS	
CONTACT NUMBER	DEPARTMENT OF THE COUNTY CLERK
	JEFFERSON COUNTY MISSOURI
	729 MAPLE ST / PO BOX 100
	HILLSBORO MO 63050-0100

SEALED BID: (BID NAME)

Contract Term:
**UPON APPROVAL OF THE
COUNTY COUNCIL AND
COUNTY EXECUTIVE**

**Vendor
Information:**

The undersigned certifies that he/she has the authority to bind this company in an agreement/contract to supply the commodity or service in accordance with all terms, conditions, and pricing specified. This Bid, if accepted, will constitute an Agreement and Contract with Jefferson County, Missouri, upon approval of the County Council and County Executive. Prices are firm during this agreement term, unless agreed upon in writing by the County. The County has the option to renew this agreement at the same terms and conditions as the original agreement for two additional one-year term with the written consent of the successful Bidder. Price increases for renewals are not authorized unless approved in writing by the County.

Missouri Petroleum Products	Andy Carrigan
Company Name	Authorized Agent (Print)
1620 Woodson Rd	
Address	Signature
St Louis, MO 63114	Fabric/Sales
City/State/Zip Code	Title
(314) 378-3906	12/10/15 #43 1845744
Telephone #	Date Tax ID #
andyc@missouripetroleum.com	(314) 991-9624
E-mail	Fax #

Minimum Delivery Required (Circle One) Yes No

If yes, amount \$ _____

Additional Supplier Fees \$ _____ Comments: _____

Approximate Time required for delivery from time of order 1-2 days

Time required for order of materials you do not stock from time of order 7-10 days

For parts picked up at your location, how many miles from the Hillsboro location to your supply dock
47 miles ?

What are your regular business hours? 7 am - 3 pm

BID PRICES

Contract shall be based on net price resulting from percentage discount from specified Manufacturers Price Sheet price lists. Current Manufacturers Price Sheet lists shall be submitted with the bidding documents.

Bidder must supply the County with a toll free telephone number for placing orders.

Do not use chain discounts; show one discount only.

Price increase/decrease by the manufacturer will be allowed under this contract; however, the percentage discount shall remain the same. The County shall be notified prior to any price increase or decrease.

Vendor is instructed to contact Kurt Wengert (636) 797-5427 regarding any and all questions concerning this contract.

TERM OF CONTRACT

This contract will remain in effect for 12 months from the date of acceptance. The County of Jefferson reserves the right to renew this contract for two additional 12-month periods at the same discounts, terms and conditions with the written consent of the successful bidder.

SUPPLY CATEGORY/BID

Geosynthetic supplies categories will be as listed below and should include all types offered. The pricing offered may be any such as; MSRP, List, Retail, State bid, Government, Dealer, Contractor, Fleet, all product lines, or other.

EXAMPLE BID

SUPPLIES CATEGORY	PRICING OFFERED	DISCOUNT
Erosion Control Geotextiles	MSRP	XX% off List
Waterproofing Geomembranes	Contractor	none
Geogrids (Biaxial or Triaxial)	Government	per State bid
Misc. Geosynthetics*	Dealer	XX% off List

* The County reserves the right to investigate all types of geosynthetic materials available and select from any category needed for the desired use.

BID SHEET

Multiple supply categories may be bid. **Bidders shall include a copy of their product catalog or listing of product lines available that they will offer and a listing of their retail locations.** Multiple vendors will be selected for the convenience of the County.

SUPPLIES CATEGORY	PRICING OFFERED	DISCOUNT (if any)
Misc. Geosynthetics	Contractor	None
High Strength Woven Geotextiles	Contractor	None
Geogrids (Biaxial)	Contractor	None
Waterproofing Membranes	Contractor	None

Note: volume discounts and delivery costs will be negotiated for each order purchased.



1620 Woodson Road
St. Louis, MO 63114
314-378-3906 Cell
Fax 314-991-4037

www.missouripetroleum.com

Date: December 14, 2015

Bid Date: 12/29/15 - 2:00 p.m.

Bid: 2016 Erosion Control and Geosynthetic Materials

To: Jefferson County, Missouri

Missouri Petroleum is pleased to quote the following price for the above referenced job:

Miscellaneous Geotextiles

LINQ GTF 200 (200# woven)	@ \$ 0.50/sy
12.5' x 432' = 600 sy/roll OR 15' x 360' = 600 sy/roll	
LINQ GTF 300 (315# woven)	@ \$ 0.65/sy
12.5' x 360' = 500 sy/roll	
LINQ140EX (4 oz/sy nonwoven)	@ \$ 0.48/sy
12.5' x 360' = 500 sy/roll OR 15' x 360' = 600 sy/roll	
LINQ 150EX (6 oz/sy nonwoven)	@ \$ 0.60/sy
12.5' x 360' = 500 sy/roll OR 15' x 300' = 500 sy/roll	
LINQ 180EX (8 oz/sy nonwoven)	@ \$ 0.80/sy
15' x 300' = 500 sy/roll	
LINQ 245EX (10 oz/sy nonwoven)	@ \$ 1.05/sy
15' x 300' = 500 sy/roll	
LINQ 275EX (12 oz/sy nonwoven)	@ \$ 1.35/sy
15' x 300' = 500 sy/roll	

High Strength Woven Geotextiles

Geotex 2X2HF	@ \$ 1.40/sy
15' x 300' = 500 sy/roll	
Geotex 4X4HF	@ \$ 2.30/sy
15' x 300' = 500 sy/roll	

Geogrid

Syntec SBx11 (biaxial geogrid)	@ \$ 0.85/sy
13.12' x 246' = 358 sy/roll	
Syntec SBx12 (biaxial geogrid)	@ \$ 1.45/sy
13.12 x 164' = 239 sy/roll	

Waterproofing Membrane

Polyguard NW74 membrane	@ \$ 170/roll
12" x 200' / 24" x 100' / 48" x 50'	
Polyguard 650 RC Liquid Adhesive (5 gal pails)	@ \$ 149/pail
Polyguard 650 Mastic (5 gal pails)	@ \$ 119/pail

Geotextile Pins (for pinning down geotextile)

12" pins w/ washer (100 pins/box)	@ \$ 40/box
--	--------------------

- Material location: 1620 Woodson Road, St Louis, MO 63114 (800) 392-4295 ext. 231 or 226
- All material sold in full rolls, pails or boxes.
- Material Specification sheets included with bid.
- This quote shall be made a part of any subcontract. If there is a conflict in the language between the subcontract and this quote, this quote shall prevail.
- Terms are net 30 days.

GTF-200

Thrace-LINQ® GTF-200 is woven in a stable weave pattern; using high-tenacity polypropylene slit film yarns. This geotextile has been UV stabilized and is resistant to commonly encountered chemicals, mildew, and insects, found in soil. Thrace-LINQ® GTF-200 meets AASHTO M288-06 Class 3 standards.

PROPERTY	TEST PROCEDURE	METRIC		ENGLISH	
		MARV	MARV	MARV	MARV
Grab Tensile Strength	ASTM-D4632	890	N	200	lbs
Grab Tensile Elongation	ASTM-D4632	15 / 15	%	15 / 15	%
Trapezoid Tear	ASTM-D4533	334 / 334	N	75 / 75	lbs
CBR Puncture	ASTM-D6241	3114	N	700	lbs
Permittivity	ASTM-D4491	0.08	sec ⁻¹	0.08	sec ⁻¹
WaterFlow Rate	ASTM-D4491	244	l/min/m ²	6	gpm/ft ²
Apparent Opening Size (AOS)	ASTM-D4751	0.425	mm	40	USSieve
UV Stability @ 500 hrs	ASTM-D4355	80	%	80	%

Notes: • Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
 • Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.

PACKAGING		METRIC				ENGLISH			
		Area	Width	Length	Est. Weight	Area	Width	Length	Est. Weight
		m ²	m	m	kg	yd ²	ft	ft	lbs
Roll Sizes		502	3.8	131.7	82	600	12.5	432	180
		502	4.6	109.7	83	600	15	360	182
		502	5.3	94.2	84	600	17.5	309	185

*Physical properties reflect industry standards. Roll Data may reflect higher values than those listed above.
 Roll lengths and widths have a tolerance of +/- 1%.*

The property values listed above are effective 09/2012 and are subject to change without notice.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of our knowledge and belief, accurate and reliable as of the date manufactured. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself or herself as to the suitability and completeness of such information for his or her own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer any warranty against infringement.

LINQ and the Thrace-LINQ emblem are registered trademarks of Thrace-LINQ, Inc.

GTF-300

Thrace-LINQ® GTF-300 is woven in a stable weave pattern; using high-tenacity polypropylene slit film yarns. This geotextile has been UV stabilized and is resistant to commonly encountered chemicals, mildew, and insects, found in soil. Thrace-LINQ® GTF-300 meets AASHTO M288-06 Class 1 standards.

PROPERTY	TEST PROCEDURE	METRIC		ENGLISH	
		MARV	MARV	MARV	MARV
Grab Tensile Strength	ASTM-D4632	1401	N	315	lbs
Grab Tensile Elongation	ASTM-D4632	15 / 15	%	15 / 15	%
Trapezoid Tear	ASTM-D4533	512 / 512	N	115 / 115	lbs
CBR Puncture	ASTM-D6241	4448	N	1000	lbs
Permittivity	ASTM-D4491	0.05	sec ⁻¹	0.05	sec ⁻¹
WaterFlow Rate	ASTM-D4491	163	l/min/m ²	4	gpm/ft ²
Apparent Opening Size (AOS)	ASTM-D4751	0.425	mm	40	USSieve
UV Stability @ 500 hrs	ASTM-D4355	80	%	80	%

Notes:

- Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
- Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.

PACKAGING		METRIC				ENGLISH			
		Area	Width	Length	Est. Weight	Area	Width	Length	Est. Weight
		m ²	m	m	kg	yd ²	ft	ft	lbs
Roll Sizes		418	3.8	109.7	93	500	12.5	360	205
		418	4.6	91.4	94	500	15	300	207
		418	5.3	78.5	95	500	17.5	258	210

*Physical properties reflect industry standards. Roll Data may reflect higher values than those listed above.
 Roll lengths and widths have a tolerance of +/- 1%.*

The property values listed above are effective 03/2013 and are subject to change without notice.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of our knowledge and belief, accurate and reliable as of the date manufactured. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself or herself as to the suitability and completeness of such information for his or her own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer any warranty against infringement.

LINQ and the Thrace-LINQ emblem are registered trademarks of Thrace-LINQ, Inc.

140EX

Thrace-LINQ® 140EX is a nonwoven geotextile fabric manufactured from Polypropylene staple fiber. The fibers are randomly oriented and form a cohesive/stabilized needlepunched fabric, for use in many applications. This fabric has been UV stabilized and is resistant to commonly encountered chemicals, mildew, and insects, found in soil. Thrace-LINQ® 140EX meets AASHTO M288-06 Class 3 standards.

PROPERTY	TEST PROCEDURE	METRIC		ENGLISH	
		MARV	MARV	MARV	MARV
Grab Tensile Strength	ASTM-D4632	534	N	120	lbs
Grab Tensile Elongation	ASTM-D4632	50	%	50	%
Trapezoid Tear	ASTM-D4533	222	N	50	lbs
CBR Puncture	ASTM-D6241	1512	N	340	lbs
Permittivity	ASTM-D4491	1.8	sec ⁻¹	1.8	sec ⁻¹
WaterFlow Rate	ASTM-D4491	5297	l/min/m ²	130	gpm/ft ²
Apparent Opening Size (AOS)	ASTM-D4751	0.212	mm	70	USSieve
UV Stability @ 500 hrs	ASTM-D4355	70	%	70	%

Notes: • Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
 • Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.

PACKAGING		METRIC				ENGLISH				
		Area	Width	Length	Est. Weight	Area	Width	Length	Est. Weight	
		m ²	m	m	kg	yd ²	ft	ft	lbs	
Roll Sizes		418	3.8	109.7	69	500	12.5	360	152	
		502	4.6	109.7	83	600	15	360	182	

Physical properties reflect industry standards. Roll Data may reflect higher values than those listed above.

Roll lengths and widths have a tolerance of +/- 1%.

The property values listed above are effective 09/2012 and are subject to change without notice.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of our knowledge and belief, accurate and reliable as of the date manufactured. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself or herself as to the suitability and completeness of such information for his or her own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer any warranty against infringement.

LINQ and the Thrace-LINQ emblem are registered trademarks of Thrace-LINQ, Inc.

150EX

Thrace-LINQ® 150EX is a nonwoven geotextile fabric manufactured from Polypropylene staple fiber. The fibers are randomly oriented and form a cohesive/stabilized needlepunched fabric, for use in many applications. This fabric has been UV stabilized and is resistant to commonly encountered chemicals, mildew, and insects, found in soil. Thrace-LINQ® 150EX meets AASHTO M288-06 Class 2 standards.

PROPERTY	TEST PROCEDURE	METRIC		ENGLISH	
		MARV	MARV	MARV	MARV
Grab Tensile Strength	ASTM-D4632	712	N	160	lbs
Grab Tensile Elongation	ASTM-D4632	50	%	50	%
Trapezoid Tear	ASTM-D4533	267	N	60	lbs
CBR Puncture	ASTM-D6241	1824	N	410	lbs
Permittivity	ASTM-D4491	1.5	sec ⁻¹	1.5	sec ⁻¹
WaterFlow Rate	ASTM-D4491	4482	l/min/m ²	110	gpm/ft ²
Apparent Opening Size (AOS)	ASTM-D4751	0.180	mm	80	USSieve
UV Stability @ 500 hrs	ASTM-D4355	70	%	70	%

Notes: • Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
 • Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.

PACKAGING		METRIC				ENGLISH				
		Area	Width	Length	Est. Weight	Area	Width	Length	Est. Weight	
		m ²	m	m	kg	yd ²	ft	ft	lbs	
Roll Sizes		418	3.8	109.7	90	500	12.5	360	199	
		418	4.6	91.4	91	500	15	300	201	

Physical properties reflect industry standards. Roll Data may reflect higher values than those listed above.

Roll lengths and widths have a tolerance of +/- 1%.

The property values listed above are effective 09/2012 and are subject to change without notice.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of our knowledge and belief, accurate and reliable as of the date manufactured. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself or herself as to the suitability and completeness of such information for his or her own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer any warranty against infringement.

LINQ and the Thrace-LINQ emblem are registered trademarks of Thrace-LINQ, Inc.

180EX

Thrace-LINQ® 180EX is a nonwoven geotextile fabric manufactured from Polypropylene staple fiber. The fibers are randomly oriented and form a cohesive/stabilized needlepunched fabric, for use in many applications. This fabric has been UV stabilized and is resistant to commonly encountered chemicals, mildew, and insects, found in soil. Thrace-LINQ® 180EX meets AASHTO M288-06 Class 1 standards.

PROPERTY	TEST PROCEDURE	METRIC		ENGLISH	
		MARV	MARV	MARV	MARV
Grab Tensile Strength	ASTM-D4632	912	N	205	lbs
Grab Tensile Elongation	ASTM-D4632	50	%	50	%
Trapezoid Tear	ASTM-D4533	356	N	80	lbs
CBR Puncture	ASTM-D6241	2380	N	535	lbs
Permittivity	ASTM-D4491	1.5	sec ⁻¹	1.5	sec ⁻¹
WaterFlow Rate	ASTM-D4491	4482	l/min/m ²	110	gpm/ft ²
Apparent Opening Size (AOS)	ASTM-D4751	0.150	mm	100	USSieve
UV Stability @ 500 hrs	ASTM-D4355	70	%	70	%

Notes: • Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
 • Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.

PACKAGING		METRIC				ENGLISH			
		Area	Width	Length	Est. Weight	Area	Width	Length	Est. Weight
		m ²	m	m	kg	yd ²	ft	ft	lbs
Roll Sizes		418	3.8	109.7	118	500	12.5	360	261
		418	4.6	91.4	119	500	15	300	263

Physical properties reflect industry standards. Roll Data may reflect higher values than those listed above.

Roll lengths and widths have a tolerance of +/- 1%.

The property values listed above are effective 09/2012 and are subject to change without notice.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of our knowledge and belief, accurate and reliable as of the date manufactured. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself or herself as to the suitability and completeness of such information for his or her own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer any warranty against infringement.

LINQ and the Thrace-LINQ emblem are registered trademarks of Thrace-LINQ, Inc.

Product Data Sheet

245EX

Thrace-LINQ® 245EX is a nonwoven geotextile fabric manufactured from Polypropylene staple fiber. The fibers are randomly oriented and form a cohesive/stabilized needlepunched fabric, for use in many applications. This fabric has been UV stabilized and is resistant to commonly encountered chemicals, mildew, and insects, found in soil.

PROPERTY	TEST PROCEDURE	METRIC		ENGLISH	
		MARV	MARV	MARV	MARV
Grab Tensile Strength	ASTM-D4632	1112	N	250	lbs
Grab Tensile Elongation	ASTM-D4632	50	%	50	%
Trapezoid Tear	ASTM-D4533	445	N	100	lbs
CBR Puncture	ASTM-D6241	3114	N	700	lbs
Permittivity	ASTM-D4491	1.2	sec ⁻¹	1.2	sec ⁻¹
WaterFlow Rate	ASTM-D4491	3463	l/min/m ²	85	gpm/ft ²
Apparent Opening Size (AOS)	ASTM-D4751	0.150	mm	100	USSieve
UV Stability @ 500 hrs	ASTM-D4355	70	%	70	%

Notes: • Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
 • Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.

PACKAGING		METRIC				ENGLISH			
		Area	Width	Length	Est. Weight	Area	Width	Length	Est. Weight
		m ²	m	m	kg	yd ²	ft	ft	lbs
Roll Sizes		418	3.8	109.7	147	500	12.5	360	324
		418	4.6	91.4	148	500	15	300	326

*Physical properties reflect industry standards. Roll Data may reflect higher values than those listed above.
 Roll lengths and widths have a tolerance of +/- 1%.*

The property values listed above are effective 09/2012 and are subject to change without notice.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of our knowledge and belief, accurate and reliable as of the date manufactured. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself or herself as to the suitability and completeness of such information for his or her own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer any warranty against infringement.

LINQ and the Thrace-LINQ emblem are registered trademarks of Thrace-LINQ, Inc.

Product Data Sheet

275EX

Thrace-LINQ® 275EX is a nonwoven geotextile fabric manufactured from Polypropylene staple fiber. The fibers are randomly oriented and form a cohesive/stabilized needlepunched fabric, for use in many applications. This fabric has been UV stabilized and is resistant to commonly encountered chemicals, mildew, and insects, found in soil.

PROPERTY	TEST PROCEDURE	METRIC		ENGLISH	
		MARV	MARV	MARV	MARV
Grab Tensile Strength	ASTM-D4632	1334	N	300	lbs
Grab Tensile Elongation	ASTM-D4632	50	%	50	%
Trapezoid Tear	ASTM-D4533	512	N	115	lbs
CBR Puncture	ASTM-D6241	3692	N	830	lbs
Permittivity	ASTM-D4491	0.9	sec ⁻¹	0.9	sec ⁻¹
WaterFlow Rate	ASTM-D4491	2648	l/min/m ²	65	gpm/ft ²
Apparent Opening Size (AOS)	ASTM-D4751	0.150	mm	100	USSieve
UV Stability @ 500 hrs	ASTM-D4355	70	%	70	%

Notes:

- Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
- Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.

PACKAGING		METRIC				ENGLISH			
		Area	Width	Length	Est. Weight	Area	Width	Length	Est. Weight
		m ²	m	m	kg	yd ²	ft	ft	lbs
Roll Sizes		418	3.8	109.7	175	500	12.5	360	386
		418	4.6	91.4	176	500	15	300	388

Physical properties reflect industry standards. Roll Data may reflect higher values than those listed above.

Roll lengths and widths have a tolerance of +/- 1%.

The property values listed above are effective 09/2012 and are subject to change without notice.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of our knowledge and belief, accurate and reliable as of the date manufactured. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself or herself as to the suitability and completeness of such information for his or her own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer any warranty against infringement.

LINQ and the Trace-LINQ emblem are registered trademarks of Trace-LINQ, Inc.



GEOTEX®
BY PROPEX

PRODUCT DATA • GEOTEX 2X2HF

GEOTEX 2X2HF is a woven polypropylene geotextile containing heavy woven monofilament/fibrillated yarns produced by Propex, and will meet the following typical values when tested in accordance with the methods listed below. These characteristics make **GEOTEX 2X2HF** ideal for the construction of embankments over soft soils, steepened slopes, and modular block and/or wrapped-face retaining walls. The geotextile is resistant to ultraviolet degradation and to biological and chemical environments normally found in soils.

GEOTEX 2X2HF conforms to the property values listed below.¹ Propex performs internal Manufacturing Quality Control (MQC) tests that have been accredited by the Geosynthetic Accreditation Institute - Laboratory Accreditation Program (GAI-LAP).

Typical²

PROPERTY	TEST METHOD	ENGLISH	METRIC
ORIGIN OF MATERIALS			
% U.S. Manufactured Inputs		100%	100%
% U.S. Manufactured		100%	100%
MECHANICAL			
Wide Width Tensile	ASTM D-4595	2640 x 2460 lbs/ft	38.5 x 36.0 kN/m
Wide Width Elongation	ASTM D-4595	7%	7%
Wide Width Tensile at 2% Strain	ASTM D-4595	480 x 588 lbs/ft	7.0 x 8.6 kN/m
Wide Width Tensile at 5% Strain	ASTM D-4595	1212 x 1356 lbs/ft	17.7 x 19.8 kN/m
Wide Width Tensile at 10% Strain	ASTM D-4595	2340 x 2412 lbs/ft	34.2 x 35.2 kN/m
CBR Puncture	ASTM D-6241	1300 lbs	5783 N
Trapezoidal Tear	ASTM D-4533	125 lbs	556 N
ENDURANCE			
UV Resistance % Retained at 500 hrs	ASTM D-4355	80%	80%
HYDRAULIC			
Apparent Opening Size (AOS) ³	ASTM D-4751	30 US Std. Sieve	0.600 mm
Permittivity	ASTM D-4491	0.70 sec ¹	0.70 sec ¹
Water Flow Rate	ASTM D-4491	50 gpm/ft ²	2037 lpm/m ²
ROLL SIZES		15.0 ft x 300 ft	4.6 m x 91.5 m

NOTES:

1. The property values listed above are effective 04/2013 and are subject to change without notice.
2. Values shown are in weaker principal direction.



Propex Operating Company, LLC • 1110 Market Street, Suite 300 • Chattanooga, TN 37402 USA

PH: 800-621-1273 • F: 423-899-5005 • PropexGlobal.com

Fibermesh®, Fibercast®, Enduro®, Novomesh®, Novocon®, Geotex®, Landlok®, Pyramat®, X2®, SuperGro®, Petromat®, Petrotac®, and Reflectex™ are registered trademarks of Propex Operating Company, LLC.

This publication should not be construed as engineering advice. While information contained in this publication is accurate to the best of our knowledge, Propex does not warrant its accuracy or completeness. The ultimate customer and user of the products should assume sole responsibility for the final determination of the suitability of the information and the products for the contemplated and actual use. The only warranty made by Propex for its products is set forth in our product data sheets for the product, or such other written warranty as may be agreed by Propex and individual customers. Propex specifically disclaims all other warranties, express or implied, including without limitation, warranties of merchantability or fitness for a particular purpose, or arising from provision of samples, a course of dealing or usage of trade.

© 2013 Propex Operating Company, LLC



GEOTEX®
BY PROPEX

PRODUCT DATA • GEOTEX 4X4HF

GEOTEX 4X4HF is a woven polypropylene geotextile containing heavy woven serrated/serrated yarns produced by Propex, and will meet the following Minimum Average Roll Values (MARV) when tested in accordance with the methods listed below. These characteristics make **GEOTEX 4X4HF** ideal for the construction of embankments over soft soils, steepened slopes, modular block and/or wrapped-face retaining walls and subgrade reinforcement/stabilization for road construction. The geotextile is resistant to ultraviolet degradation and to biological and chemical environments normally found in soils.

GEOTEX 4X4HF conforms to the property values listed below.¹ Propex performs internal Manufacturing Quality Control (MQC) tests that have been accredited by the Geosynthetic Accreditation Institute - Laboratory Accreditation Program (GAI-LAP). This product is NTPEP approved for AASHTO standards.

MARV²

PROPERTY	TEST METHOD	ENGLISH	METRIC
ORIGIN OF MATERIALS			
% U.S. Manufactured Inputs		100%	100%
% U.S. Manufactured		100%	100%
MECHANICAL			
Wide Width Tensile	ASTM D-4595	4800 x 4800 lbs/ft	70.1 x 70.1 kN/m
Wide Width Tensile at 2% Strain	ASTM D-4595	960 x 1320 lbs/ft	14.0 x 19.3 kN/m
Wide Width Tensile at 5% Strain	ASTM D-4595	2400 x 2700 lbs/ft	35.0 x 39.4 kN/m
Wide Width Tensile at 10% Strain	ASTM D-4595	4800 x 4800 lbs/ft	70.1 x 70.1 kN/m
CBR Puncture	ASTM D-6241	2000 lbs	8900 N
Trapezoidal Tear	ASTM D-4533	180 lbs	801N
ENDURANCE			
UV Resistance	ASTM D-4355	80%	80%
% Retained at 500 hrs			
HYDRAULIC			
Apparent Opening Size (AOS) ³	ASTM D-4751	30 US Std. Sieve	0.600 mm
Permittivity	ASTM D-4491	0.40 sec ⁻¹	0.40 sec ⁻¹
Water Flow Rate	ASTM D-4491	30 gpm/ft ²	1222 lpm/m ²
ROLL SIZES		15.0 ft x 300 ft	4.6 m x 91.5 m

NOTES:

1. The property values listed above are effective 04/2011 and are subject to change without notice.
2. Values shown are in weaker principal direction. Minimum average roll values (MARV) are calculated as the typical minus two standard deviations. Statistically, it yields a 97.7% degree of confidence that any samples taken from quality assurance testing will exceed the value reported.
3. Maximum average roll value.



Propex Operating Company, LLC • 1110 Market Street, Suite 300 • Chattanooga, TN 37402 USA

PH: 800-621-1273 • F: 423-899-5005 • PropexGlobal.com

Fibermesh®, Fibercast®, Enduro®, Novomesh®, Novocon®, Geotex®, Landlok®, Pyramat®, X3®, SuperGro®, Petromat®, Petrofac®, and Reflectex™ are registered trademarks of Propex Operating Company, LLC.

This publication should not be construed as engineering advice. While information contained in this publication is accurate to the best of our knowledge, Propex does not warrant its accuracy or completeness. The ultimate customer and user of the products should assume sole responsibility for the final determination of the suitability of the information and the products for the contemplated and actual use. The only warranty made by Propex for its products is set forth in our product data sheets for the product, or such other written warranty as may be agreed by Propex and individual customers. Propex specifically disclaims all other warranties, express or implied, including without limitation, warranties of merchantability or fitness for a particular purpose, or arising from provision of samples, a course of dealing or usage of trade.

© 2013 Propex Operating Company, LLC

Syntec Biaxial Geogrid SBx 11 (Type 1)

Syntec SBx 11 is a integrally formed biaxial geogrid made from the highest quality polypropylene resin. Syntec SBx Geogrids offer the most economical, expedient, and reliable solution to stabilize weak soils or reinforce aggregate base materials. SBx geogrids confine stone and soil particles to prevent lateral shearing. When used, vehicular and other loads are spread over a much broader surface area, thus reducing the pressure applied to the subgrade.

Product Specifications

Aperture Dimensions ⁽²⁾	mm (in)	25 (1.0)	33 (1.3)
Minimum Rib Thickness ⁽²⁾	mm (in)	0.76 (0.03)	0.76 (0.03)
Tensile Strength at 2% Strain ⁽³⁾	kN/m (lb/ft)	4.1 (280)	6.6 (450)
Tensile Strength at 5% Strain ⁽³⁾	kN/m (lb/ft)	8.5 (580)	13.4 (920)
Ultimate Tensile Strength ⁽³⁾	kN/m (lb/ft)	12.4 (850)	19.0 (1,300)
Junction Efficiency ⁽⁴⁾	%	93	
Flexural Stiffness ⁽⁵⁾	mg-cm	250,000	
Aperture Stability ⁽⁶⁾	m-N/deg	0.32	
Resistance to Installation Damage ⁽⁷⁾	%SC / %SW / %GP	95/93/90	
Resistance to Long-Term Degradation ⁽⁸⁾	%	100	
Resistance to UV Degradation ⁽⁹⁾	%	100	

The biaxial geogrid shall be delivered to the job site in roll form with each roll individually identified and nominally measuring 3.0 m (9.8 ft) or 4.0 m (13.1 ft) in width and 75.0 m (246 ft) in length. Also available in jumbo rolls, measuring 4.87 m (16.0 ft) in width and 100 m (328 ft) in length.

NOTES

- ¹⁾ Unless indicated 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. The overall Flexural Stiffness is calculated as the square root of the product of MD and XMD Flexural Stiffness values.
- 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 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 D5818-06 and load capacity shall be determined in accordance with ASTM D6637-01.
- ⁸⁾ Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments.
- 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.

GSE is a leading manufacturer and marketer of geosynthetic lining products and services. We've built a reputation of reliability through our dedication to providing consistency of product, price and protection to our global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.

For more information on this product and others, please visit us at [SSEworld.com](http://www.sseworld.com), call 800.435.2008 or contact your local sales office.



Syntec Biaxial Geogrid SBx 12 (Type 2)

Syntec SBx 12 is a integrally formed biaxial geogrid made from the highest quality polypropylene resin. Syntec SBx Geogrids offer the most economical, expedient, and reliable solution to stabilize weak soils or reinforce aggregate base materials. SBx geogrids confine stone and soil particles to prevent lateral shearing. When used, vehicular and other loads are spread over a much broader surface area, thus reducing the pressure applied to the subgrade.

Product Specifications

Aperture Dimensions ⁽²⁾	mm (in)	25 (1.0)	33 (1.3)
Minimum Rib Thickness ⁽²⁾	mm (in)	1.27 (0.05)	1.27 (0.05)
Tensile Strength at 2% Strain ⁽³⁾	kN/m (lb/ft)	6.0 (410)	9.0 (620)
Tensile Strength at 5% Strain ⁽³⁾	kN/m (lb/ft)	11.8 (810)	19.6 (1,340)
Ultimate Tensile Strength ⁽³⁾	kN/m (lb/ft)	19.2 (1,310)	28.8 (1,970)
Junction Efficiency ⁽⁴⁾	%	93	
Flexural Stiffness ⁽⁵⁾	mg-cm	750,000	
Aperture Stability ⁽⁶⁾	m-N/deg	0.65	
Resistance to Installation Damage ⁽⁷⁾	%SC / %SW / %GP	95/93/90	
Resistance to Long-Term Degradation ⁽⁸⁾	%	100	
Resistance to UV Degradation ⁽⁹⁾	%	100	

The biaxial geogrid shall be delivered to the job site in roll form with each roll individually identified and nominally measuring 3.0 m (9.8 ft) or 4.0 m (13.1 ft) in width and 50.0 m (164 ft) in length. Also available in jumbo rolls, measuring 4.87 m (16.0 ft) in width and 100 m (328 ft) in length.

NOTES:

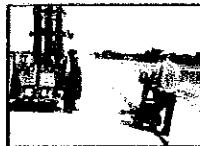
- Unless indicated otherwise, values shown are minimum average roll values determined in accordance with ASTM D4759-02. Brief descriptions of test procedures are given in the following notes.
- ⁽¹⁾Nominal dimensions
- ⁽²⁾True resistance to elongation when initially subjected to a load determined in accordance 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.
- ⁽³⁾Load transfer capability determined in accordance with GRI-GG2-05 and expressed as a percentage of ultimate tensile strength.
- ⁽⁴⁾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. The overall Flexural Stiffness is calculated as the square root of the product of MD and XMD Flexural Stiffness values.
- ⁽⁵⁾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 U.S. Army Corps of Engineers Methodology for measurement of Torsional Rigidity.
- ⁽⁶⁾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 D5818-06 and load capacity shall be determined in accordance with ASTM D6637-01.
- ⁽⁷⁾Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments.
- ⁽⁸⁾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.

GSE is a leading manufacturer and marketer of geosynthetic lining products and services. We've built a reputation of reliability through our dedication to providing consistency of product, price and protection to our global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.

DURABILITY RUNS DEEP For more information on this product and others, please visit us at GSEWorld.com, call 800.437.2008 or contact your local sales office.





NW-75 MEMBRANE

PRODUCT DESCRIPTION AND PROPERTY DATA

NW-75 membrane is comprised of a rubberized asphalt waterproofing sealant adhesive with a non-woven pavement reinforcing grade polypropylene fabric laminated to the outer surface. A peel-off silicone treated release liner keeps the rubberized asphalt from sticking to the membrane when the roll is rolled up.

NW-75 membrane is designed for use prior to an asphalt overlay. If placed on joints and cracks of pavement it will not only waterproof but also reduce the extent and severity of reflective cracking. If installed on bridge decks, it acts as a waterproofing membrane, protecting reinforcing steel in the deck from corrosion.

The nonwoven geotextile fabric used as backing on the NW-75 has an advantage in that its open woven fibers will provide a mechanical bond to the asphalt overlay.

PRECAUTIONS

The information in this data sheet is designed to be helpful to the reader. It is based on experience and information considered to be accurate and true. Readers should carefully consider and verify the information with investigation of any areas with uncertainty. Polyguard does not warrant the results to be obtained. Additionally, please read everything here in conjunction with Polyguard's conditions of sale, which are applicable to everything supplied by us. No statement here is intended for any use which would infringe any patent or copyright.



Polyguard Products, Inc. will replace F.O.B. Ennis, Texas, material not meeting our manufacturer's specifications one year from date of sale. Made in the U.S.A.

SAFETY

All Polyguard products must be handled in a safe manner. Some products (some mastics or primers) contain solvents, and these deserve special attention to safety since their vapors are both flammable and harmful if inhaled. Also certain 2 component products contain especially hazardous components. Read both the product label and the Material Safety Data Sheet (MSDS) before use. MSDS sheets can be obtained at our website www.polyguardproducts.com. Call Polyguard at 214-515-5000 if you have any questions.

Purchaser is responsible for complying with all applicable federal, state, or local laws and regulations covering use of the product including waste disposal.

PROPERTY	TEST METHOD	MARV VALUE
Thickness	ASTM D 1777 (using 1/2" presser foot)	65 mils.
Strip Tensile Strength	ASTM D 882	50 lbs./in. width
Grab Tensile Strength	ASTM D 4632	160 lbs.
Puncture Resistance	ASTM E154	200 lbs.
Permeance – Perms	ASTM E 96 (Method B)	0.05 max.
Elongation at break of fabric	ASTM D 4632	60 %
Pliability at low temperatures -15 °F	ASTM D 146	No cracks in fabric or rubberized asphalt

* E:\Engineering\2013\NW-75\Membrane Data Sheet - NW doc R 2-28-13

P.O. Box 755
Ennis, TX 75120
PH: (214) 515-5000
FX: (972) 875-9425

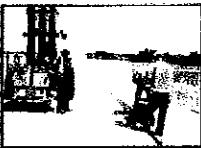
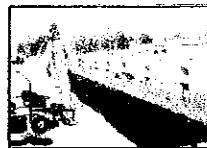
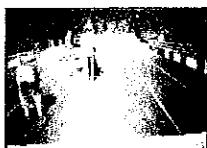
This information is based on our best knowledge, but
POLYGUARD cannot guarantee the results to be obtained.



Polyguard is ISO 9001 certified since 1996.



Highway Products
Highway Products



650 RC LIQUID ADHESIVE

POLYGUARD 650 RC LIQUID ADHESIVE is an asphaltic solvent based liquid adhesive which meets ASTM-D-41, which replaces FS-SS-A-701.

PROCEDURES TO FOLLOW:

ON ALL CONCRETE BRIDGE DECK OR MILLED PAVEMENT SURFACES - Liquid adhesive should always be used.

ON NEW ASPHALT PAVEMENT SURFACES - Liquid Adhesive is not necessary unless the temperature is too cool to obtain a good bond between membrane and pavement. This condition can occur between 40°F and 50°F.

ON OLD ASPHALT OR CONCRETE PAVEMENT SURFACES (except milled surfaces) - Liquid Adhesive is not required if pavement temperature is over 70°F and rising. If temperature is under 70°F, liquid adhesive is recommended.

PHYSICAL PROPERTIES:

PROPERTY/UNIT	TEST METHOD	TYPICAL - ENGLISH	TYPICAL - METRIC
Color	-	Black	Black
Specific Gravity	ASTM D 891	.92	.92
Flash Point	ASTM D 56	105° F	41° C

APPLICATION PROCEDURES:

- **650 RC LIQUID ADHESIVE** must be stirred each day prior to use.
- **SURFACE SHALL BE DRY, CLEAN AND FREE FROM FROST, DUST, OIL OR OTHER FOREIGN MATTER DETRIMENTAL TO THE ADHESION OF THE MEMBRANE.**
- Normal **650 RC LIQUID ADHESIVE** coverage is approximately 400 sq. ft. per gallon (250 sq. ft per gallon on milled surfaces). **650 RC LIQUID ADHESIVE** shall be applied so the surface is entirely coated. Drying time for **650 RC LIQUID ADHESIVE** can vary due to temperatures and humidity. Adhesive is ready for membrane application when it does not adhere to fingertips, when touched lightly.
- Primed surfaces **must** be reprimed, if membrane is not applied within 24 hours.
- User should review Material Safety Data Sheet (MSDS) for this product and follow safety instructions listed therein.

XPL-704-GNWAY/650 RC Liquid Adhesive doc R.09/13/09

P.O. Box 755
Ennis, TX 75120
PH: (214) 515-5000
FX: (972) 875-9425

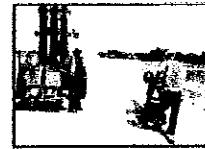
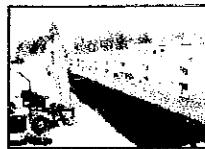
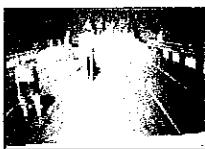
This information is based on our best knowledge, but
POLYGUARD cannot guarantee the results to be obtained.



Polyguard is ISO 9001 certified since 1996.



Highway Products
Highway Products



650 MASTIC

DESCRIPTION

Polyguard 650 Mastic is an asphalt/rubber based mastic which provides excellent adhesion to the *Polyguard 650 Waterproofing Membrane*, structural concrete, masonry, and wood surfaces.

650 Mastic is an integral part of the *Polyguard Waterproofing System* and substitutions are not allowed.

USES

650 Mastic is designed to protect the termination edges, overlaps, patches, and any additional detailing areas. On vertical applications, *650 Mastic* must be applied on both the bottom and top terminations of the *Polyguard Waterproofing System*. *650 Mastic* should not be applied where it will be immediately covered by *650 Waterproofing Membrane*.

TECHNICAL DATA

PHYSICAL PROPERTIES	TYPICAL RESULTS
Color	Black
Specific Gravity	1.12
Flash Point (<i>PM Closed Cup</i>)	105°F (41°C)

APPLICATION

650 Mastic is supplied either in a 5 gallon pail or in a 30 oz. caulking tube. If some material is applied with a caulking gun the bead must be struck with a trowel to insure the *650 Mastic* is worked into the termination edges. If the material is supplied in a pail, it may be applied with either a trowel or by hand using rubber gloves as precautions. When applied as a temporary cut-off trowel the *650 Mastic* over the membrane in a very thin layer, and allow to cure a minimum of 12 hours before placement of additional *650 Waterproofing Membrane*.

On the bottom edge of any vertical application, *650 Mastic* must be applied liberally to these areas. *650 Mastic* should also be applied around any protrusions, drains, or any areas requiring patching, or specific detailing.

SAFETY, STORAGE, AND HANDLING INFORMATION

650 Mastic vapors are combustible. Refer to product label for handling precautions.

PRECAUTIONS

The information in this data sheet is designed to be helpful to the reader. It is based on experience and information considered to be accurate and true. Readers should carefully consider and verify the information with investigation of any areas with uncertainty. *Polyguard* does not warrant the results to be obtained. Additionally, please read everything here in conjunction with *Polyguard*'s conditions of sale, which are applicable to everything supplied by us. No statement here is intended for any use which would infringe any patent or copyright.

Polyguard Products, Inc. will replace F.O.B. Ennis, Texas, material not meeting our manufacturer's specifications one year from date of sale. Made in the U.S.A.

SAFETY

All *Polyguard* products must be handled in a safe manner. Some products (some mastics or primers) contain solvents, and these deserve special attention to safety since their vapors are both flammable and harmful if inhaled. Also certain 2 component products contain especially hazardous components. Read both the product label and the Material Safety Data Sheet (MSDS) before use. Please refer to our website for the most recent literature updates and MSDS sheets at www.PolyguardProducts.com. Call *Polyguard* at 214-515-5000 if you have any questions.

P.O. Box 755
Ennis, TX 75120
PH: (214) 515-5000
FX: (972) 875-9425

This information is based on our best knowledge, but
POLYGUARD cannot guarantee the results to be obtained.



Polyguard is ISO 9001 certified since 1996.

Purchaser is responsible for complying with all applicable federal, state, or local laws and regulations covering use of the product including waste disposal.

TECHNICAL SERVICE AND AVAILABILITY

Technical assistance, information and *Polyguard* products are available through a nationwide network of distributors and representatives or contact *Polyguard Products, Inc.*

LIMITED WARRANTY

Polyguard Products, Inc. has no control over the storage, handling or use of this product, thus the guarantee is limited to the purchase price of the defective material only.

This product is not covered by *Polyguard Products* ISO 9001 Quality System.



JEFFERSON COUNTY
DEPARTMENT OF ADMINISTRATIVE SERVICES
729 MAPLE ST / PO BOX 100
HILLSBORO MO 63050
WWW.JEFFCOMO.ORG

Invitation for Bid: 2016 EROSION CONTROL AND GEOSYNTHETIC MATERIALS

Date Issued: 11-25-15

BIDS SHALL BE ACCEPTED UNTIL: TUESDAY, DECEMBER 29, 2015, AT 2:00 P.M. LOCAL TIME.

Specification Contact:
KURT WENGERT
Department of Public Works
636-797-5427
kwengert@jeffcomo.org

Contract Contact:
VICKIE PRATT
Department of Administrative Services
636-797-5380

Mail (3) Three Complete Copies With Vendor And Bid Information As Shown In Sample:

SAMPLE ENVELOPE

<i>VENDOR NAME</i>	
<i>VENDOR ADDRESS</i>	
<i>CONTACT NUMBER</i>	DEPARTMENT OF THE COUNTY CLERK
	JEFFERSON COUNTY MISSOURI
	729 MAPLE ST / PO BOX 100
	HILLSBORO MO 63050-0100

SEALED BID: (BID NAME)

Contract Term:
UPON APPROVAL OF THE COUNTY COUNCIL AND COUNTY EXECUTIVE

The undersigned certifies that he/she has the authority to bind this company in an agreement/contract to supply the commodity or service in accordance with all terms, conditions, and pricing specified. This Bid, if accepted, will constitute an Agreement and Contract with Jefferson County, Missouri, upon approval of the County Council and County Executive. Prices are firm during this agreement term, unless agreed upon in writing by the County. The County has the option to renew this agreement at the same terms and conditions as the original agreement for two additional one-year term with the written consent of the successful Bidder. Price increases for renewals are not authorized unless approved in writing by the County.

Vendor Information:

<u>ASP Enterprises</u>	<u>Mark Stirneman</u>
Company Name	Authorized Agent (Print)
<u>1694 Cassens Ind. Ct.</u>	<u>Mark S</u>
Address	Signature
<u>Fenton, MO 63026</u>	<u>Sales Representative</u>
City/State/Zip Code	Title
<u>636-343-4357</u>	<u>12/23/15</u> <u>43-121222</u>
Telephone #	Date
<u>mstirneman@aspent.com</u>	<u>636-343-4723</u>
E-mail	Fax #

Minimum Delivery Required (Circle One) Yes No
If yes, amount \$ N/A

Additional Supplier Fees \$ 0 Comments: _____

Approximate Time required for delivery from time of order 1-2 Days

Time required for order of materials you do not stock from time of order 7-10 Days

For parts picked up at your location, how many miles from the Hillsboro location to your supply dock
24 miles ?

What are your regular business hours? 7:00 AM - 5:00 PM Mon - Fri

BID PRICES

Contract shall be based on net price resulting from percentage discount from specified Manufacturers Price Sheet price lists. Current Manufacturers Price Sheet lists shall be submitted with the bidding documents.

Bidder must supply the County with a toll free telephone number for placing orders.

Do not use chain discounts; show one discount only.

Price increase/decrease by the manufacturer will be allowed under this contract; however, the percentage discount shall remain the same. The County shall be notified prior to any price increase or decrease.

Vendor is instructed to contact Kurt Wengert (636) 797-5427 regarding any and all questions concerning this contract.

TERM OF CONTRACT

This contract will remain in effect for 12 months from the date of acceptance. The County of Jefferson reserves the right to renew this contract for two additional 12-month periods at the same discounts, terms and conditions with the written consent of the successful bidder.

SUPPLY CATEGORY/BID

Geosynthetic supplies categories will be as listed below and should include all types offered. The pricing offered may be any such as; MSRP, List, Retail, State bid, Government, Dealer, Contractor, Fleet, all product lines, or other.

EXAMPLE BID

SUPPLIES CATEGORY	PRICING OFFERED	DISCOUNT
Erosion Control Geotextiles	MSRP	XX% off List
Waterproofing Geomembranes	Contractor	none
Geogrids (Biaxial or Triaxial)	Government	per State bid
Misc. Geosynthetics*	Dealer	XX% off List

* The County reserves the right to investigate all types of geosynthetic materials available and select from any category needed for the desired use.



BID SHEET

Multiple supply categories may be bid. Bidders shall include a copy of their product catalog or listing of product lines available that they will offer and a listing of their retail locations. Multiple vendors will be selected for the convenience of the County.

SUPPLIES CATEGORY	PRICING OFFERED	DISCOUNT (if any)
Geotextile Fabric	Contractor	None
Geogrid	Contractor	None
Erosion Control Blanket	Contractor	None
Sediment Control	Contractor	None
Misc. Geosynthetics	Contractor	None

Note: volume discounts and delivery costs will be negotiated for each order purchased.

General Line Card

Solutions

Geosynthetics

Filter Fabrics

Stabilization Fabrics

Geogrids

- Road Grids
- Wall Grids
- Slope Stabilization

Specialty Fabrics

Composite Geomembranes

- GCLs, PVC, HDPE, LLDPE, EPDM, Granular Liners

Erosion Control

Basic Hydraulically Applied Products

- Basic Mulches
- Wood
- Paper
- Blends

High-Performance Hydraulically Applied Products

- BFMS
- FGMS
- Additives

Temporary Erosion Control Blankets

- Short-Term ECBS
- Extended-Term ECBS
- Spray-On ECBS

Permanent Erosion Control Blankets

- Turf Reinforcement Mats

Structural BMPs

- Transition Mats
- Cellular Confinement
- Composite Vegetated Armor System
- Articulating Concrete Block
- Gabions
- Grout-Filled Geotextile Mats
- Composite Systems

Vegetation Establishment

- Turf Seed
- Fertilizers
- Native Seeding

Sediment Control

Inlet Protection

- Grated Inlet, Curb Inlet, Area Inlet Protection

Perimeter Protection

- High- and Low-Porosity Silt Fence, Straw Wattles, Filter Berms

Flocculants and Water Treatment

- Polymer-Based and Natural Flocculants

Sediment Basin Skimmers

Dewatering Bags

Stormwater Management

Water Quality

- Inlet Filter Boxes
- Nutrient Separating Baffle Boxes
- High-Flow Biofiltration Media

Water Quantity

- Modular Underground Storage Systems
- Passive Integrated Chamber Irrigation System

Drainage

- HDPE Swale Liner
- Pipe, Fittings
- Drainage Composites

Inlet Structures

- PVC
- Landscape

Permeable Pavers

- Articulating Concrete Block Paver Mats
- Grass Pavers
- Gravel Pavers
- Concrete Pavers

Bioengineering

Coir Fiber Logs - 12", 16" and 20" logs, Natural and Synthetic

Vegetated Reinforced Soil Slopes

Plant Plugs, Native Seed

Jute Nettings, Coir Nettings

Specialty

Soil Anchors

Vinyl Sheet Pile

Root Barrier Systems

Truncated Domes

Safety Fence

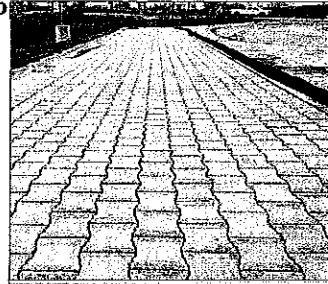
De-Icing products



Flexterra Flexible Growth Medium applied on large DOT slope in St. Louis.



Atlantis D-Raintanks installed on a Lift Station project in Omaha, NE.



PaveDrain Permeable Articulating Concrete Block Mat Paving System

ASP
ENTERPRISES
Quick Supply Co.

The Midwest's Most Trusted Site Solutions Provider



JEFFERSON COUNTY
DEPARTMENT OF ADMINISTRATIVE SERVICES
729 MAPLE ST / PO BOX 100
HILLSBORO MO 63050
WWW.JEFFCOMO.ORG

Invitation for Bid: 2016 EROSION CONTROL AND GEOSYNTHETIC MATERIALS

Date Issued: 11-25-15

BIDS SHALL BE ACCEPTED UNTIL: TUESDAY, DECEMBER 29, 2015, AT 2:00 P.M. LOCAL TIME.

Specification Contact:
KURT WENGERT
Department of Public Works
636-797-5427
kwengert@jeffcomo.org

Contract Contact:
VICKIE PRATT
Department of Administrative Services
636-797-5380

Mail (3) Three Complete Copies With Vendor And Bid Information As Shown In Sample:

SAMPLE ENVELOPE

<i>VENDOR NAME</i>	
<i>VENDOR ADDRESS</i>	
<i>CONTACT NUMBER</i>	DEPARTMENT OF THE COUNTY CLERK
	JEFFERSON COUNTY MISSOURI
	729 MAPLE ST / PO BOX 100
	HILLSBORO MO 63050-0100

SEALED BID: (BID NAME)

**Contract Term:
UPON APPROVAL OF THE
COUNTY COUNCIL AND
COUNTY EXECUTIVE**

The undersigned certifies that he/she has the authority to bind this company in an agreement/contract to supply the commodity or service in accordance with all terms, conditions, and pricing specified. This Bid, if accepted, will constitute an Agreement and Contract with Jefferson County, Missouri, upon approval of the County Council and County Executive. Prices are firm during this agreement term, unless agreed upon in writing by the County. The County has the option to renew this agreement at the same terms and conditions as the original agreement for two additional one-year term with the written consent of the successful Bidder. Price increases for renewals are not authorized unless approved in writing by the County.

Vendor Information:

Nuway Concrete Farms, Inc *Howard H. Sweet III*
Company Name *Howard H. Sweet III* Authorized Agent (Print)
4190 Hafner Ave *Howard H. Sweet III* Signature
Address
St Louis Mo 63125 *Outside Sales Support*
City/State/Zip Code Title
314-544-1214 *12/28/2015* *10801031*
Telephone # Date Tax ID #
hsweet@nuwayinc.com *314-544-7665*
E-mail Fax #

nu way

Everything for the Contractor!

Re: After Hours Emergency Policy

Nu Way offers an after hour's service to its customers. This service is only available to customers with credit accounts that are in good standing.

The initial fee for the after hour's service is \$300, this includes one employee opening the store and one hour of time, after the first hour, the charge is \$100 each additional hour. The charge for additional employees if needed, is \$100 per hour, per employee.

Delivery will be available for an additional charge.



4190 Hoffmeister Avenue • Saint Louis, Missouri 63125-2298
www.nuwayinc.com • 314.544.1214 • FAX 314.544.7665

SAINT LOUIS • JEFFERSON CITY • JACKSON • WENTZVILLE, MO • TROY, IL

Minimum Delivery Required (Circle One) Yes No

If yes, amount \$ _____

Additional Supplier Fees \$ 5.00 Del Fee Comments: _____

Approximate Time required for delivery from time of order 1-2 Days

Time required for order of materials you do not stock from time of order 7-10 Working Days

For parts picked up at your location, how many miles from the Hillsboro location to your supply dock
35.9 miles?

What are your regular business hours? Mon-Fri: 7:00-5:00 Sat 8:00-12:00



BID PRICES

Contract shall be based on net price resulting from percentage discount from specified Manufacturers Price Sheet price lists. Current Manufacturers Price Sheet lists shall be submitted with the bidding documents.

Bidder must supply the County with a toll free telephone number for placing orders.

Do not use chain discounts; show one discount only.

Price increase/decrease by the manufacturer will be allowed under this contract; however, the percentage discount shall remain the same. The County shall be notified prior to any price increase or decrease.

Vendor is instructed to contact Kurt Wengert (636) 797-5427 regarding any and all questions concerning this contract.

TERM OF CONTRACT

This contract will remain in effect for 12 months from the date of acceptance. The County of Jefferson reserves the right to renew this contract for two additional 12-month periods at the same discounts, terms and conditions with the written consent of the successful bidder.

SUPPLY CATEGORY/BID

Geosynthetic supplies categories will be as listed below and should include all types offered. The pricing offered may be any such as; MSRP, List, Retail, State bid, Government, Dealer, Contractor, Fleet, all product lines, or other.

EXAMPLE BID

SUPPLIES CATEGORY	PRICING OFFERED	DISCOUNT
Erosion Control Geotextiles	MSRP	XX% off List
Waterproofing Geomembranes	Contractor	none
Geogrids (Biaxial or Triaxial)	Government	per State bid
Misc. Geosynthetics*	Dealer	XX% off List

* The County reserves the right to investigate all types of geosynthetic materials available and select from any category needed for the desired use.

BID SHEET

Multiple supply categories may be bid. Bidders shall include a copy of their product catalog or listing of product lines available that they will offer and a listing of their retail locations. Multiple vendors will be selected for the convenience of the County.

SUPPLIES CATEGORY	PRICING OFFERED	DISCOUNT (if any)
<u>Non Woven Filter Fabric</u>	<u>List</u>	<u>10% off List</u>
<u>Woven Filter Fabric</u>	<u>List</u>	<u>10% off List</u>
<u>Silt Fencing</u>	<u>List</u>	<u>10% off List</u>
<u>Straw Wattle / True Dam</u>	<u>List</u>	<u>10% off List</u>
<u>Straw</u>	<u>List</u>	<u>10% off List</u>

Note: volume discounts and delivery costs will be negotiated for each order purchased.