



EROSION CONTROL MATERIALS PRODUCT DATA

Photograph courtesy Propex GeoSolutions

FOR MORE INFORMATION

Geosynthetics magazine has provided information on the erosion control materials specification charts for comparative purposes only. Designers should contact manufacturers for additional details and to discuss site-specific considerations.

Information on the use and specification of erosion control products is also available from the Geosynthetic Materials Association (GMA).

GMA
1801 County Road B West, Suite 100
Roseville, MN 55113-4052 USA
+1 651 225 6981
fax +1 651 631 9334
fcchuck@ifai.com
www.GMAnow.com

PUBLISHER'S NOTE

Geosynthetics magazine compiled all information included in the 2022 *Geosynthetics Specifier's Guide* from information submitted by firms in the geosynthetics industry. Companies provided specifications voluntarily, and specification accuracy is the responsibility of the manufacturer. The appearance of a listing in this directory is not an endorsement of the company or product by *Geosynthetics* magazine or the Industrial Fabrics Association International (IFAI). The 2022 *Geosynthetics Specifier's Guide* is intended as a guide, and *Geosynthetics* magazine and IFAI encourage readers to contact the companies listed for further information.

Companies design these products to solve erosion and sediment control problems, and to provide long-term stabilization by establishing and maintaining vegetative cover.

Erosion control products give engineers ready solutions for one of the fastest-growing design niches. Many of these products work with vegetation to form a biocomposite solution to erosion. The charts in this section are divided into degradable rolled erosion control products (RECPs), nondegradable RECPs and hard armor.

Degradable products are used to enhance the establishment of vegetation, such as on a rehabilitated lakeshore or alongside a recently constructed roadway. These products are used where vegetation alone will provide sufficient site protection once the erosion control product has degraded.

Nondegradable products provide long-term reinforcement of vegetation. They are used in more challenging erosion control applications where immediate, high-performance erosion protection is required. The materials extend the erosion resistance of soil, rock and other materials by permanently reinforcing the vegetative root structure.

The numbers

Companies that submitted product data chart lines were asked to provide data determined through industry-accepted testing methods. Companies were asked to sign a certificate of compliance verifying the accuracy of this data.

Product Name	RECP Type [1]	Composition			Performance/Design Values				Index Property
		Number of Nets	Net Type [2]	Matrix	Slope Applications		Channel Applications	Functional Longevity [4] (months)	Tensile Strength kN/m (lb/ft) ASTM D 5035
					Design "C" Factor (unvegetated)	Recommended maximum slope (H:V)	Design Shear Stress [3] Pa (lb/ft ²) (unvegetated)		
L & M Supply www.landmsupplyco.com									
US-1S	ECB	1	Synthetic	Straw	0.05	3:1	77 (1.6)	12 months	2.3 (155)
US-2S	ECB	2	Synthetic	Straw	0.04	2:1	86 (1.8)	12 months	3.2 (217)
US-2SC	ECB	2	UV stabilized synthetic	70% straw/30% coconut	0.15	3:1	96 (2.0)	24 months	3.7 (254)
US-2SCNN	ECB	2	Degradable organic	70% straw/30% coconut	0.05	3:1	96 (2.0)	24 months	3.9 (270)
US-2C	ECB	2	UV stabilized synthetic	100% coconut	0.05	1.5:1	110 (2.3)	36 months	3.6 (245)
US-2CNN	ECB	2	Degradable organic	100% coconut	0.05	1.5:1	134 (2.8)	36 months	4.3 (290)
Nedia Enterprises www.nedia.com									
KoirWrap 1200	OWT	2	organic	woven coir (coconut fiber) & jute	0.003*	1:1	239 (5.0)*	>36 months*	27.7 x 20.6* (1968 x 1416)*
KoirWrap 1000	OWT	2	organic	woven coir (coconut fiber) & jute	0.002*	1:1	215 (4.5)*	>36 months*	22.06 x 15.05* (1512 x 1032)*
KoirMat 400	OWT	1	organic	woven coir (coconut fiber)	0.002*	1:1	153 (3.2)*	>36 months*	7.35 x 7.00* (504 x 480)*
KoirMat 700	OWT	1	organic	woven coir (coconut fiber)	0.002*	1:1	215 (4.5)*	>36 months*	22.06 x 15.05* (1512 x 1032)*
KoirMat 900	OWT	1	organic	woven coir (coconut fiber)	0.003*	1:1	239 (5.0)*	>36 months*	27.7 x 20.6* (1968 x 1416)*
Propex GeoSolutions www.propexglobal.com									
LANDLOK® S2	ECB	2	Synthetic	Straw	0.035	up to 3:1	96 (2)	up to 12 months	2.8 x 1.7 (194 x 116)
LANDLOK® CS2	ECB	2	Synthetic	70% straw/30% coconut	0.023	up to 2:1	96 (2)	up to 24 months	3.5 x 1.9 (241 x 132)
LANDLOK® C2	ECB	2	Synthetic	Coconut	0.026	up to 1:1	96 (2)	up to 36 months	3.7 x 2.6 (251 x 180)

[1] ECB = Erosion control blanket
 MCN = Mulch control nettings
 OWT = Open weave textile
 TRM = Turf reinforcement mat

[2] Synthetic or organic netting
 [3] For short duration (0.5 hour) peak flow events. For long duration flow design values, please contact the manufacturer.

[4] Longevity ranges:
 ≤ 3 months
 3 – 12 months
 12 – 24 months
 24 – 36 months
 > 36 months

* = typical
 Companies were requested to provide minimum average roll values (MARV). All claims are the responsibility of the manufacturer.

« Geosynthetics recommends you contact the manufacturers before making any specifying/purchasing decisions »

Product Name	RECP Type [1]	Composition			Performance/Design Values		Index Property		
		Number of Nets	Net Type [2]	Matrix	Slope Applications	Channel Applications	Thickness ASTM D 6525 mm (in)	Tensile Strength ASTM D 5035 kN/m (lb/ft)	UV Stability ASTM D 4355 (% tensile retention)
					Recommended max. slope (H:V)	Design Shear Stress [3] Pa (lb/ ft ²) (vegetated)			
ACE Geosynthetics Inc. www.geoace.com									
ACEFormer	AP (armour protection)	0 (woven)	Synthetic	PET/PET	NA	NA	600 (24)	60 x 60 (4106 x 4106)	NP
ACETube PP250-II (Black / Tan)	GTs (geotextile tube)	0 (woven)	Synthetic	PP	NA	NA	NP	250 x 250 (17124 x 17124)	NP
ACEMat R III	TRM	0 (woven)	Synthetic	3-D woven PP	NA	NA	10 (0.4)	60 x 50 (4110 x 3425)	NP
Hanes Geo Components www.hanesgeo.com									
ScourStop transition mat	Transition mat	NA	NA	HDPE semi-rigid mat with 50% open area	NA	NA	11.7 (.46)	NA	87
L & M Supply www.landmsupplyco.com									
US-2P10	TRM	2	Black UV stabilized polypropylene	Synthetic	>1:1	574 (12)	8.9 (0.35)	5.1 x 4.1 (348 x 283)	100
Low & Bonar Inc. www.lowandbonar.com									
Enkamat 7003	TRM	NA	NA	Nylon	2:1	288 (6)	6.25 (0.25)	1.8 (125)	80 @ 2000 hrs
Enkamat 7010	TRM	NA	NA	Nylon	1:1	384 (0.3)	7.5 (0.3)	1.8 (125)	80 @ 2000 hrs
Enkamat 7020	TRM	NA	NA	Nylon	0.5:1	816 (17)	15.2 (0.6)	2.6 (175)	80 @ 2000 hrs
Enkamat R45 (7520)	TRM	NA	NA	Nylon	0.5:1	816 (17)	17.8 (0.7)	45 (3000)	80 @ 3000 hrs
Enkamat A20	TRM	NA	NA	Nylon/bituminous membrane	0.5:1	NA	22 MM	NA	NA

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[4] = 1000 hrs exposure
 [5] = 3000 hrs exposure
 Companies were requested to provide minimum average roll values (MARV). All claims are the responsibility of the manufacturer.

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					Recommended max. slope (H:V)	Design Shear Stress [3] Pa (lb/ ft ²) (vegetated)			
Maccaferri Inc. www.maccaferri.com/us									
MacMat R1 6822G0	TRM	1	Double twist hexagonal steel wire mesh with a PoliMac coating	3D PP	0.6:1 (with soil nails)		12 (0.47)	31.3 (2143)	Stabilized
MacMat R1 8127G0	TRM	1	Double twist hexagonal steel wire mesh with a PoliMac coating	3D PP	0.6:1 (with soil nails)		12 (0.47)	41.7 (2860)	Stabilized
Propex GeoSolutions www.propexglobal.com									
LANDLOK® 450	TRM	2	Synthetic	PP	stable slopes up to 1.5:1.0	479 (10)	12.7 (0.50)	6.2 x 5.1 (425 x 350)	80% @ 1,000 hrs
PYRAMAT® 25	TRM	0 (woven)	NA	3-D woven PP	stable slopes up to 1.0:1.0	575 (12)	6.35 (0.25)	29.2 x 26.3 (2,000 x 1,800)	90% @ 3,000 hrs
PYRAMAT® 75	HPTRM	0 (woven)	NA	3-D woven PP	stable slopes up to 0.5:1.0	766 (16)	10.16 (0.40)	58.4 x 43.8 (4,000 x 3,000)	90% @ 6,000 hrs
TechFab India www.techfabindia.com									
Gabion Mattress 3m x 1m x 0.30m (Zinc + PVC)	ECB	Double twisted net	8x10mm-steel wire mesh	NA	NA	NA	NA	NA	NA
Typar Geosynthetics www.typargeosynthetics.com									
GrassProtecta	Transition Mat	NA	NA	HDPE flexible mat with 50% open area	0.5:1	>589.17 (>12.3)	10.92 (.43)	12 (826)	100
Willacoochee Industrial Fabrics Inc. www.winfabusa.com									
WINFAB DIAMONDBACK 2018	TRM	0 (woven)	NA	3-D woven PP	0.5:1	576 (12)	6.4 (.25)	36.48 x 29.18 (2,500 x 2,000)	90% @ 3,000 hours
WINFAB DIAMONDBACK 4030	HPTRM	0 (woven)	NA	3-D woven PP	0.5:1	768 (16)	7.62 (.30)	59.81 x 45.23 (4,100 x 3,100)	95% @ 3,000 hours

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