GEOGRIDS
PRODUCT DATA

FOR MORE INFORMATION

The specification charts have been provided for comparative purposes only. Designers should contact manufacturers for additional details and to discuss site-specific considerations.

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

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PUBLISHER'S NOTE

All information included in this Specifier's Guide was compiled from information submitted by firms in the geosynthetics industry. Specifications were submitted voluntarily and their 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 Specifier's Guide is intended as a guide, and *Geosynthetics* and IFAI encourage readers to contact the companies listed for further information.

Geogrid products are designed for reinforcement and, characteristically, are integrally connected to elements separated by in-plane apertures.

Geogrids form a distinct category of geosynthetics designed for reinforcement. These products are characterized by a relatively high tensile strength and a uniformly distributed array of large apertures (openings between the longitudinal and transverse elements). The apertures allow soil particles on either side of the installed sheet to come into direct contact, thereby increasing the interaction between the geogrid and some soils. Also, the apertures ensure vertical drainage of a reinforced free-draining soil.

The geogrid elements vary in polymer type and cross-sectional dimensions. They can sometimes change shape and dimensions within their length. Geogrids are either integrally manufactured, ultrasonically or adhesive bonded, or joined in a knitting or weaving process and then coated.

Although geogrids are used primarily for reinforcement, some products are designed for asphalt overlay and waterproofing or for separation and stabilization. Geogrids also are used as gabions and sheet anchors, inserted between geotextiles and geomembranes, or used to construct mattresses for fills or embankments over soft soils.

The numbers

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

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GEOGRIDS

Product Name	Manufacturing Process	Polymer Type [1]	Coating Type [1]	Dimensional Properties [2]			Tensile Strength/[Elongation] ASTM D 6637 [2] kN/m (lb/ft)/%				Creep Limited Strength-MD [3] ASTM D 5262 kN/m (lb/ft)	LTDS GRI GG4-MD [4] kN/m (lb/ft) (in sand)	Manufacturer's Suggested Applications [5]
				Mass/Unit Area ASTM D 5261 g/m² (oz/yd²)	Aperture Size mm (in)		Strength @ 5% Strain		Ultimate Strength/% (Tult)				
					MD	XD	MD	XD	MD	XD			
ACE Geosynthetics Inc. | www.geoace.com													
ACEGrid GG400-II	woven	PET	PVC	NP	20 (0.8)	30 (1.2)	125 (8555)	NP	400 (27375)	400 (27375)	284 (19436)	265 (18136)	B, W, S, E, SI
ACEGrid GG900-I	woven	PET	PVC	NP	20 (0.8)	20 (0.8)	270 (18478)	NP	900 (61593)	NP	638 (43663)	620 (42431)	B, W, S, E, SI
ACEGrid GV400-I	woven	PVA	PVC	NP	30 (1.2)	28 (1.1)	NP	NP	400 (27375)	NP	NP	NP	B, W, S, E, SI
ACEGrid GV800-I	woven	PVA	PVC	NP	40 (1.6)	18 (0.7)	NP	NP	800 (54749)	NP	NP	NP	B, W, S, E, SI
ACEGrid GG300-II FR	woven	PET	fire-resistant polymer	NP	25 (1.0)	20 (0.8)	100 (6844)	NP	300 (20531)	300 (20531)	NA	NA	flame-retardant structure
Alliance Geosynthetics Inc. | www.alligeo.com													
AllianceGeo BX1515	integrally formed	PP	NA	NA	41 (1.6)	41 (1.6)	8.0 (550)	10.5 (720)	12.8 (880)	13.4 (920)	NA	NA	SI, B
AllianceGeo BX2020	integrally formed	PP	NA	NA	41 (1.6)	41 (1.6)	13.8 (950)	13.8 (950)	20.0 (1370)	20.0 (1370)	NA	NA	SI, B
AllianceGeo BX2525	integrally formed	PP	NA	NA	41 (1.6)	41 (1.6)	16.9 (1160)	16.9 (1160)	25.0 (1710)	25.0 (1710)	NA	NA	SI, B
AllianceGeo BX3030	integrally formed	PP	NA	NA	41 (1.6)	41 (1.6)	20.8 (1430)	20.8 (1430)	30.0 (2050)	30.0 (2050)	NA	NA	SI, B
AllianceGeo BX3030L	integrally formed	PP	NA	NA	66 (2.6)	66 (2.6)	20.8 (1430)	20.8 (1430)	30.0 (2050)	30.0 (2050)	NA	NA	SI, B
AllianceGeo BX4040	integrally formed	PP	NA	NA	38 (1.5)	38 (1.5)	27.8 (1910)	27.8 (1910)	40.0 (2740)	40.0 (2740)	NA	NA	SI, B
AllianceGeo BX Type 1	integrally formed	PP	NA	NA	25 (1.0)	36 (1.4)	8.5 (580)	13.4 (920)	12.4 (850)	18.9 (1300)	NA	NA	SI, B
AllianceGeo BX Type 2	integrally formed	PP	NA	NA	25 (1.0)	36 (1.4)	11.8 (810)	19.5 (1340)	19.1 (1310)	28.7 (1970)	NA	NA	SI, B
AllianceGeo RG1010	knitted	Glass-fiber	Bitumen	NA	18 (0.7)	18 (0.7)	NA	NA	6860 (100)	6860 (100)	NA	NA	A/O, PR
AllianceGeo RG2010	knitted	Glass-fiber	Bitumen	NA	25 (1.0)	25 (1.0)	NA	NA	6860 (100)	13720 (200)	NA	NA	A/O, PR
Bonar Inc. | www.bonar.com													
Enkagrid PRO 90	laser-welded	PET	NA	NA	111 (4.4)	35 (1.4)	81 (5548)	NA	105 (7,192) / 6	NA	70.4 (4822.4)	60.9 (4175)	E, S, W
Enkagrid PRO 180	laser-welded	PET	NA	NA	111 (4.4)	34 (1.3)	140 (9590)	NA	197 (13,498) / 6	NA	135.9 (9313.9)	120 (8220.6)	E, S, W
Enkagrid G55	woven	PET	PVC	NA	35 (1.4)	35 (1.4)	NP	NP	55 (3,768) / NP	55 (3768) / NP	NP	NP	E, S, W, SI
Enkagrid G300	woven	PET	PVC	NA	20 (0.8)	20 (0.8)	NP	NP	300 (20,556) / NP	NP	NP	NP	E, S, W, SI
Carthage Mills | www.gxgeogrids.com													
GX-300	woven	PET	PVC	NA	22 (0.87)	25 (0.98)	15.7 (1,080)	N.A.	47.3 (3,250)	NA	32.2 (2,211)	27.4 (1,879)	E, S, SI, W
GX-500	woven	PET	PVC	NA	22 (0.87)	25 (0.98)	17.4 (1,202)	N.A.	65.5 (4,500)	NA	44.6 (3,061)	37.9 (2,601)	E, S, SI, W
GX-800	woven	PET	PVC	NA	23 (0.91)	23 (0.91)	29.5 (2,023)	N.A.	106.6 (7,315)	NA	72.5 (4,976)	61.6 (4,228)	E, S, SI, W

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PVA = Polyvinyl alcohol
FG = Fiberglass
PP = Polypropylene

[2] MD = Machine direction
XD = Cross-machine direction

[3] Test per ASTM D 5262, for a minimum of 10,000 hours and extrapolate to a 75-year time period.

[4] $LTDS = \frac{T_{ult}}{RF_{CR} \times RF_{ID} \times RF_{D}}$

RF_{CR} = Reduction factor for creep
RF_{ID} = Reduction factor for installation damage
RF_{D} = Reduction factor for durability

NOTE: this equation does not include other reduction factors which may apply to design. Reduction factors are site specific and should be reviewed on a per project basis. Contact the manufacturer for recommendations.

[5] A/O = Asphalt overlay
B = Base reinforcement
E = Embankments
PR = Pavement reinforcement
S = Slopes
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W = Walls

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				Mass/Unit Area ASTM D 5261 g/m² (oz/yd²)	Aperture Size mm (in)		Strength @ 5% Strain		Ultimate Strength/% (Tult)				
					MD	XD	MD	XD	MD	XD			
GSE Environmental | www.gseworld.com													
SBx 11 (Type 1)	integrally formed	PP	NA	NA	25 (1.0)	33 (1.3)	8.5 (580)	13.4 (920)	12.4 (850)	19.0 (1300)	NP	NP	B, SI
SBx 12 (Type 2)	integrally formed	PP	NA	NA	25 (1.0)	33 (1.3)	11.8 (810)	19.6 (1340)	19.2 (1310)	28.8 (1970)	NP	NP	B, SI
SBx 13	integrally formed	PP	NA	NA	42 (1.65)	60 (2.36)	10.5 (720)	17.5 (1200)	16.0 (1100)	28.0 (1920)	NP	NP	B, SI
SBx 15	integrally formed	PP	NA	NA	25 (1.0)	30 (1.2)	17.5 (1200)	20.0 (1370)	27.0 (1850)	30.0 (2050)	NP	NP	B, SI
UX11-S / UX11-W	integrally formed	HDPE	NA	NA	NA	NA	27.0 (1850)	NA	58.0 (3970)	NA	22.3 (1522)	21.2 (1450)	W, E, S
UX14-S / UX14-W	integrally formed	HDPE	NA	NA	NA	NA	31.0 (2130)	NA	70.0 (4800)	NA	26.9 (1848)	25.6 (1760)	W, E, S
UX16-S / UX16-W	integrally formed	HDPE	NA	NA	NA	NA	58.0 (3980)	NA	144 (9870)	NA	55.3 (3800)	52.7 (3620)	W, E, S
Hanes Geo Components | www.hanesgeo.com													
TerraGrid RX1100	integrally formed	PP	NA	NA	25✧ (1.0✧)	37✧ (1.4✧)	8.5 (580)	13.4 (920)	12.4 (850)	19.0 (1300)	NA	NA	B, SI
TerraGrid RX1200	integrally formed	PP	NA	NA	25✧ (1.0✧)	37✧ (1.4✧)	11.8 (810)	19.6 (1340)	19.2 (1310)	28.8 (1970)	NA	NA	B, SI
E'Grid 2020	integrally formed	PP	NA	NA	38✧ (1.5✧)	38✧ (1.5✧)	15.3 (1045)	15.3 (1045)	20 (1370)	20 (1370)	NA	NA	B, SI
E'Grid 3030	integrally formed	PP	NA	NA	38✧ (1.5✧)	38✧ (1.5✧)	21.6 (1480)	21.6 (1480)	30 (2055)	30 (2055)	NA	NA	B, SI
✧ nominal													
Huesker Inc. | www.huesker.com													
Fornit 20	knitted	PP	polymeric	150 (4.5)	15 (0.6)	15 (0.6)	11 (753)	16 (1096)	17/6 (1164)	24/6 (1644)	NA	NA	B, SI
Fornit 30	knitted	PP	polymeric	220 (6.5)	15 (0.6)	15 (0.6)	20 (1370)	27 (1850)	27/6 (1850)	35/6 (2398)	NA	NA	B, SI
Fornit 30/30	knitted	PP	polymeric	240 (7)	35 (1.35)	35 (1.35)	24 (1640)	24 (1640)	30/6 (2055)	30/6 (2055)	NA	NA	B, SI
Fornit 40/40	knitted	PP	polymeric	375 (11)	35 (1.35)	35 (1.35)	32 (2190)	32 (2190)	40/6 (2740)	40/6 (2740)	NA	NA	B, SI
HaTelit C 40/17	knitted	PET (grid) PP (textile)	bituminous	360 (10.5)	40 (1.5)	40 (1.5)	NA	NA	50/10 (3425)	50/10 (3425)	NA	NA	A/O, PR
Fortrac 35	woven	PET	PVC	235 (7)	20 (0.8)	20 (0.8)	13 (890)	NA	35/8 (2400)	NA	22.3 (1527)	19.3 (1322)	W, E, S 4<pH<10
Fortrac 55	woven	PET	PVC	275 (8)	20 (0.8)	20 (0.8)	18 (1240)	NA	54/8 (3700)	NA	34.2 (2342)	29.6 (2027)	W, E, S 4<pH<10
Fortrac 80	knitted	PET	PVC	440 (13)	20 (0.8)	20 (0.8)	26 (1780)	NA	83/8 (5685)	NA	52.5 (3596)	45.5 (3117)	W, E, S 4<pH<10
Fortrac 110	knitted	PET	PVC	475 (14)	20 (0.8)	20 (0.8)	33 (2260)	NA	110/8 (7400)	NA	69.2 (4740)	60.3 (4130)	W, E, S 4<pH<10
Fortrac 150	knitted	PET	PVC	645 (19)	30 (1.2)	30 (1.2)	52 (3560)	NA	147.6/8 (10,100)	NA	93.3 (6392)	80.8 (5535)	W, E, S 4<pH<10
Fortrac 200	knitted	PET	PVC	715 (21)	30 (1.2)	30 (1.2)	69 (4725)	NA	197.3/8 (13,500)	NA	124.7 (8544)	108 (7398)	W, E, S 4<pH<10
Fortrac 35 MP	woven	PVA	PVC	240 (7)	20 (0.8)	30 (1.2)	34 (2330)	NA	35/4 (2400)	NA	21.4 (1472)	20.4 (1400)	W, E, S 2<pH<13
Fortrac 55 MP	woven	PVA	PVC	270 (8)	20 (0.8)	30 (1.2)	49 (3350)	NA	54/4 (3700)	NA	33.0 (2260)	31.5 (2160)	W, E, S 2<pH<13
Fortrac 80 MP	woven	PVA	PVC	375 (11)	20 (0.8)	30 (1.2)	72 (4930)	NA	80/4 (5480)	NA	49.0 (3360)	46.7 (3200)	W, E, S 2<pH<13
Fortrac 110 MP	woven	PVA	PVC	400 (12)	20 (0.8)	30 (1.2)	98 (6715)	NA	110/4 (7535)	NA	72.6 (4977)	62.9 (4309)	W, E, S 2<pH<13

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				Mass/Unit Area ASTM D 5261 g/m^2 (oz/yd^2)	Aperture Size mm (in)		Strength @ 5% Strain		Ultimate Strength/% (Tult)				
					MD	XD	MD	XD	MD	XD			
Lückenhaus Technical Textiles Inc. | www.synteen.de													
RAUGRID 11X3N	woven	PET	PVC	405 (14.2)	20 (0.8)	20 (0.8)	29.3 (2007)	NA	110 (7538)	NA	71.0 (4863)	58.2 (3989)	B, W, S, E
RAUGRID 13X3N	woven	PET	PVC	535 (18.8)	20 (0.8)	20 (0.8)	41.0 (2809)	NA	130 (8908)	NA	83.8 (5747)	68.8 (4714)	B, W, S, E
RAUGRID 15X3N	woven	PET	PVC	585 (20.6)	20 (0.8)	20 (0.8)	43.5 (2981)	NA	150 (10279)	NA	96.7 (6631)	80.9 (5544)	B, W, S, E
RAUGRID 3X3N	woven	PET	PVC	180 (6.3)	20 (0.8)	20 (0.8)	9.7 (664)	NA	30 (2055)	30 (2055)	19.3 (1325)	15.6 (1067)	B, W, S, E
RAUGRID 4X2N	woven	PET	PVC	180 (6.3)	20 (0.8)	20 (0.8)	11.4 (781)	NA	40 (2741)	NA	25.8 (1768)	20.8 (1423)	B, W, S, E
RAUGRID 5X2N	woven	PET	PVC	250 (8.8)	20 (0.8)	20 (0.8)	16.0 (1096)	NA	50 (3426)	NA	32.2 (2210)	26.0 (1779)	
RAUGRID 6X3N	woven	PET	PVC	300 (10.5)	20 (0.8)	20 (0.8)	17.9 (1226)	NA	60 (4111)	NA	38.7 (2652)	31.7 (2175)	B, W, S, E
RAUGRID 8X3N	woven	PET	PVC	365 (12.8)	20 (0.8)	20 (0.8)	23.5 (1610)	NA	80 (5482)	NA	51.6 (3536)	42.3 (2901)	B, W, S, E
STARGrid G+PF	woven grid & nonwoven fabric	fiberglass grid & nonwoven fabric composite	polymeric	350 (10.3)	30 (1.2)	30 (1.2)	NA	NA	50.0 (3740)	50.0 (3740)	NA	NA	A/O, PR
STARGrid G+PF 100	woven grid & nonwoven fabric	fiberglass grid & nonwoven fabric composite	polymeric	550 (16.0)	20 (0.8)	20 (0.8)	NA	NA	100.0 (6800)	100.0 (6800)	NA	NA	A/O, PR
STARGrid G-PS 100	woven grid & interlayed filling yarn	FG	polymeric	470 (13.8)	30 (1.2)	30 (1.2)	NA	NA	100.0 (6800)	100.0 (6800)	NA	NA	A/O, PR
Maccaferri Inc. | www.maccaferri-usa.com													
MacGrid EG 30S	extrusion	PP	----	----	32 (1.3)	31 (1.2)	21 (1440)	21 (1440)	30 (2050)	30 (2050)	----	----	----
MacGrid EG 40S	extrusion	PP	----	----	32 (1.3)	31 (1.2)	28 (1920)	28 (1920)	40 (2740)	40 (2740)	----	----	----
MacGrid WG15	woven	PET	PVC	450 (13.2)	28 (1.1)	20 (0.8)	75 (5132)	----	150 (10280)	20 (1370)	100 (6853)	82 (5621)	Soil Reinforcement
MacGrid WG20	woven	PET	PVC	500 (14.7)	28 (1.1)	19 (0.7)	100 (6843)	----	200 (13700)	20 (1370)	133.3 (9133)	110.5 (7570)	Soil Reinforcement
ParaGrid 175/5	aligned and co-extruded	PET	LLDPE	660 (19.5)	426 (16.8)	42 (1.65)	80.5 (5515)	----	175 (11990)	5 (342.6)	127.7 (8752)	120.7 (8269)	Soil Reinforcement
ParaGrid 200/5	aligned and co-extruded	PET	LLDPE	705 (20.8)	426 (16.8)	42 (1.65)	92 (6304)	----	200 (13704)	5 (342.6)	146 (10003)	137.9 (9451)	Soil Reinforcement
ParaLink 1350	aligned and co-extruded	PET	LLDPE	3670 (108.3)	940 (37)	9 (0.3)	868.6 (59517)	----	1357.2 (92995)	----	990.6 (67880)	936 (64134)	Soil Reinforcement
ParaLink 1500	aligned and co-extruded	PET	LLDPE	4012 (118)	940 (37)	9 (0.3)	960 (65779)	----	1500 (102780)	----	1095 (75022)	1035 (70883)	Soil Reinforcement
ParaDrain 150/15	aligned and co-extruded	PET	LLDPE	680 (20.1)	201 (7.9)	42 (1.65)	69 (4728)	----	150 (10278)	1027.8	109.5 (7502)	103.4 (7088)	Reinforcement of Cohesive Soil / Drainage
ParaDrain 200/15	aligned and co-extruded	PET	LLDPE	780 (23.0)	201 (7.9)	42 (1.65)	92 (6304)	----	200 (13704)	1027.8	146 (10003)	137.9 (9451)	Reinforcement of Cohesive Soil / Drainage

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					MD	XD	MD	XD	MD	XD			
Saint-Gobain ADFORS | www.adfors.com													
CompoGrid CG50	knitted (FG) w/ nonwoven (PP)	FG/PP	EP	340 (10.0)	NA	NA	NA	NA	50 (3426) / 3%	50 (3426) / 3%	NA	NP	A/O, PR
CompoGrid CG100	knitted (FG) w/ nonwoven (PP)	FG/PP	EP	542 (16.0)	NA	NA	NA	NA	100 (6852) / 3%	100 (6852) / 3%	NA	NP	A/O, PR
CompoGrid CG200	knitted (FG) w/ nonwoven (PP)	FG/PP	EP	746 (22.0)	NA	NA	NA	NA	100 (6852) / 3%	200 (13,704) / 3%	NA	NP	A/O, PR
GlasGrid 8550	knitted	FG	EP	205 (6.0)	25 (1.0)	25 (1.0)	NA	NA	50 (3426) / 3%	50 (3426) / 3%	NA	NP	A/O, PR
GlasGrid 8501	knitted	FG	EP	405 (12.0)	12.5 (0.5)	12.5 (0.5)	NA	NA	100 (6852) / 3%	100 (6852) / 3%	NA	NP	A/O, PR
GlasGrid 8511	knitted	FG	EP	405 (12.0)	25 (1.0)	25 (1.0)	NA	NA	100 (6852) / 3%	100 (6852) / 3%	NA	NP	A/O, PR
GlasGrid 8502	knitted	FG	EP	610 (18.0)	12.5 (0.5)	12.5 (0.5)	NA	NA	100 (6852) / 3%	200 (13,704) / 3%	NA	NP	A/O, PR
GlasGrid 8512	knitted	FG	EP	610 (18.0)	25 (1.0)	19 (0.75)	NA	NA	100 (6852) / 3%	200 (13,704) / 3%	NA	NP	A/O, PR
GlasGrid 8501 TF	knitted	FG	EP	432 (12.7)	12.5 (0.5)	12.5 (0.5)	NA	NA	100 (6852) / 3%	100 (6852) / 3%	NA	NP	A/O, PR
GlasGrid 8511 TF	knitted	FG	EP	432 (12.7)	25 (1.0)	25 (1.0)	NA	NA	100 (6852) / 3%	100 (6852) / 3%	NA	NP	A/O, PR
GlasGrid 8520	knitted	FG	EP	610 (18.0)	12.5 (0.5)	12.5 (0.5)	NA	NA	200 (13,704) / 3%	100 (6852) / 3%	NA	NP	A/O, PR
Strata Systems Inc. | www.geogrid.com													
Strata Microgrid	precision knitted	PET	polymeric	NP	6.35 (0.25)	2.54 (0.10)	7.3 (500)	4.4 (300)	29.2 (2000)	29.2 (2000)	16.8 (1149)	12.7 (871)	E, W, S, SI
Stratagrid SG150	precision knitted	PET	polymeric	NP	25.4 (1.0)	24.1 (0.95)	9.5 (650)	4.4 (300)	27.4 (1875)	27.4 (1875)	16.6 (1136)	12.6 (861)	E, W, S, SI
Stratagrid SG200	precision knitted	PET	polymeric	NP	18.3 (0.72)	16.5 (0.65)	17.4 (1190)	NA	52.5 (3600)	NA	33.9 (2323)	28.0 (1919)	E, W, S
Stratagrid SG350	precision knitted	PET	polymeric	NP	21.6, 15.2 (0.85, 0.60)	14.0 (0.55)	24.5 (1680)	NA	73.0 (5000)	NA	47.1 (3226)	38.9 (2666)	E, W, S
Stratagrid SG500	precision knitted	PET	polymeric	NP	62.2 (2.45)	25.4 (1.0)	28.5 (1950)	NA	93.4 (6400)	NA	60.3 (4129)	49.8 (3412)	E, W, S
Stratagrid SG550	precision knitted	PET	polymeric	NP	21.6, 8.9 (0.85, 0.35)	24.1 (0.95)	34.1 (2340)	NA	118.9 (8150)	NA	76.7 (5258)	63.4 (4346)	E, W, S
Stratagrid SG600	precision knitted	PET	polymeric	NP	62.2 (2.45)	24.1 (0.95)	39.0 (2670)	NA	132.8 (9100)	NA	85.7 (5871)	70.8 (4852)	E, W, S
Stratagrid SG700	precision knitted	PET	polymeric	NP	62.2 (2.45)	24.1 (0.95)	42.9 (2937)	NA	172.2 (11800)	NA	111.1 (7613)	91.8 (6292)	E, W, S
Stratagrid SG1200	precision knitted	PET	polymeric	NP	48, 8, 8 (1.9, 0.3, 0.3)	24 (0.95)	50.0 (3426)	NA	200 (13704)	NA	129.0 (8841)	106.6 (7307)	E, W, S
Stratagrid SG1300	precision knitted	PET	polymeric	NP	60 (2.36)	22 (0.87)	75.0 (5139)	NA	300 (20556)	NA	193.5 (13262)	159.9 (10960)	E, W, S
Stratagrid SG1400	precision knitted	PET	polymeric	NP	42, 12, 12 (1.65, 0.5, 0.5)	16 (0.63)	100 (6852)	NA	400 (27408)	NA	258.0 (17683)	213.2 (14614)	E, W, S
StrataBase SB10	integrally formed	PP	NA	NA	36 (1.4)	38 (1.5)	7 (479)	7 (479)	15 (1027)	15 (1027)	NA	NA	SI, B
StrataBase SB11	integrally formed	PP	NA	NA	26 (1.02)	35 (1.38)	8.5 (580)	13.4 (920)	12.4 (850)	19.0 (1300)	NA	NA	SI, B
StrataBase SB12	integrally formed	PP	NA	NA	26 (1.02)	35 (1.38)	11.8 (810)	19.6 (1340)	19.2 (1310)	28.8 (1970)	NA	NA	SI, B
StrataBase SB30	integrally formed	PP	NA	NA	36 (1.42)	34 (1.34)	20 (1370)	20 (1370)	30 (2055)	30 (2055)	NA	NA	SI, B

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FG = Fiberglass
PP = Polypropylene

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[3] Test per ASTM D 5262, for a minimum of 10,000 hours and extrapolate to a 75-year time period.

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NOTE: this equation does not include other reduction factors which may apply to design. Reduction factors are site specific and should be reviewed on a per project basis. Contact the manufacturer for recommendations.

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Product Name	Manufacturing Process	Polymer Type [1]	Coating Type [1]	Dimensional Properties [2]			Tensile Strength/[Elongation] ASTM D 6637 [2] kN/m (lb/ft)/%				Creep Limited Strength-MD [3] ASTM D 5262 kN/m (lb/ft)	LTDS GRI GG4-MD [4] kN/m (lb/ft) (in sand)	Manufacturer's Suggested Applications [5]
				Mass/Unit Area ASTM D 5261 g/m^2 (oz/yd^2)	Aperture Size mm (in)		Strength @ 5% Strain		Ultimate Strength/% (Tult)				
					MD	XD	MD	XD	MD	XD			
TechFab India | www.techfabindia.com													
Techgrid U-200/30	knitted	PET	PVC	NP	30 (1.18)	23 (0.9)	NA	NA	200 (13705)	30 (2056)	140.8 (9648)	119.7 (8201)	W, S, E
Techgrid B-200/200	knitted	PET	PVC	NP	23 (0.9)	23 (0.9)	70 (4796)	50 (3425)	200 (13705)	200 (13705)	NP	NP	B, SI
TechGlass-100 with PSA	knitted	glass fiber	Bitumen	NP	12.5 (0.5)	12.5 (0.5)	NA	NA	100 (6850)	100 (6850)	NA	NA	A/O, PR
Nonwoven Geocomposite TGC-200/200	knitted	PET / PP NW	NA	NP	NP	NP	90 (6166)	90 (6166)	200 (13705)	200 (13705)	130.7 (8955)	85.1 (5830)	SI
TenCate Geosynthetics | www.mirafi.com													
Mirafi Miramesh	woven	PP	NA	197 (5.8)	NP	NP	NA	NA	21.0 (1440)	25.3 (1733)	6.9 (471) MD 8.3 (566) CD	5.9 (407) MD 7.2 (490) CD	W
Miragrid 2XT	woven	PET	PVC	NP	NP	NP	NA	NA	29.2 (2000)	29.2 (2000)	18.5 (1266)	16.0 (1096)	W, S, E
Miragrid 3XT	woven	PET	PVC	NP	NP	NP	15.4 (1056)	NA	51.1 (3500)	NA	32.3 (2215)	28.0 (1918)	W, S, E
Miragrid 5XT	woven	PET	PVC	NP	NP	NP	25.4 (1740)	NA	68.6 (4700)	NA	43.4 (2975)	37.6 (2575)	W, S, E
Miragrid 7XT	woven	PET	PVC	NP	NP	NP	31.5 (2160)	NA	86.1 (5900)	NA	54.5 (3734)	47.2 (3233)	W, S, E
Miragrid 8XT	woven	PET	PVC	NP	NP	NP	36.8 (2520)	NA	108.0 (7400)	NA	68.3 (4684)	59.2 (4055)	W, S, E
Miragrid 10XT	woven	PET	PVC	NP	NP	NP	45.5 (3120)	NA	138.6 (9500)	NA	87.7 (6013)	76.0 (5206)	W, S, E
Miragrid 20XT	woven	PET	PVC	NP	NP	NP	78 (5340)	NA	200.0 (13705)	NA	127 (8674)	110(7510)	W, S, E
Miragrid 22XT	woven	PET	PVC	NP	NP	NP	98 (6700)	NA	300.0 (20559)	NA	190 (13012)	164 (11266)	W, S, E
Miragrid 24XT	woven	PET	PVC	NP	NP	NP	102 (7000)	NA	400.0 (27415)	NA	253(17351)	219 (15023)	W, S, E
Tensar International Corp. | www.tensar-international.com													
BX1100 (BX Type 1)	integrally formed	PP	NA	NA	25 [A] (1.0) [A]	33 [A] (1.3) [A]	8.5 (580)	13.4 (920)	NA	NA	NA	NA	SI, B
BX1200 (BX Type 2)	integrally formed	PP	NA	NA	25 [A] (1.0) [A]	33 [A] (1.3) [A]	11.8 (810)	19.6 (1340)	NA	NA	NA	NA	SI, B
BX1500	integrally formed	PP	NA	NA	25 [A] (1.0) [A]	31 [A] (1.2) [A]	17.5 (1200)	20.0 (1370)	NA	NA	NA	NA	SI, B
TX130S	integrally formed	PP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	SI, B
TX140	integrally formed	PP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	SI, B
TX160	integrally formed	PP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	SI, B
TX5	integrally formed	PP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	SI, B
TX7	integrally formed	PP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	SI, B
CompoGrid CG 50	knitted (FG) w/ nonwoven (PP)	FG PP	EP	305 (9)	NA	NA	NA	NA	50 @ 3% (3360)	50 @ 3% (3360)	NA	NP	A/O, PR
CompoGrid CG 100	knitted (FG) w/ nonwoven (PP)	FG PP	EP	475 (14)	NA	NA	NA	NA	100 @ 3% (6720)	100 @ 3% (6720)	NA	NP	A/O, PR
GlasGrid 8501/8501TF	knitted	FG	EP	370 (11)	12.5 (0.5)	12.5 (0.5)	NA	NA	100 @ 3% (6720)	100 @ 3% (6720)	NA	NP	A/O, PR

✧ Creep rupture extrapolated to to a 120-year time period per ASTM D 5262
✧✧ UXx00HS geogrids use for non-connected system only

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GEOGRIDS

Product Name	Manufacturing Process	Polymer Type [1]	Coating Type [1]	Dimensional Properties [2]			Tensile Strength/[Elongation] ASTM D 6637 [2] kN/m (lb/ft)/%				Creep Limited Strength-MD [3] ASTM D 5262 kN/m (lb/ft)	LTDS GRI GG4-MD [4] kN/m (lb/ft) (in sand)	Manufacturer's Suggested Applications [5]
				Mass/Unit Area ASTM D 5261 g/m^2 (oz/yd^2)	Aperture Size mm (in)		Strength @ 5% Strain		Ultimate Strength/% (Tult)				
					MD	XD	MD	XD	MD	XD			
Tensar International Corp. | www.tensar-international.com													
GlasGrid 8502	knitted	FG	EP	560 (16)	12.5 (0.5)	12.5 (0.5)	NA	NA	100 @ 3% (6720)	200 @ 3% (13,440)	NA	NP	A/O, PR
GlasGrid 8511/8511TF	knitted	FG	EP	370 (11)	25 (1.0)	25 (1.0)	NA	NA	100 @ 3% (6720)	100 @ 3% (6720)	NA	NP	A/O, PR
GlasGrid 8512	knitted	FG	EP	560 (16)	19 (0.75)	25 (1.0)	NA	NA	100 @ 3% (6720)	200 @ 3% (13,440)	NA	NP	A/O, PR
Glasgrid 8550	knitted	FG	EP	185 (5.5)	25 (1.0)	25 (1.0)	NA	NA	50 @ 3% (3360)	50 @ 3% (3360)	NA	NP	A/O, PR
LH800	integrally formed	HDPE	NA	NA	NA	104 (4.1)	NA	14 (960)	NA	38 (2600)	12.8 (880)✧	12.5 (850)✧	W, E, S
UX1100HS/MSE✧✧	integrally formed	HDPE	NA	NA	430 (17.0)	NA	27 (1850)	NA	58 (3970)	NA	22.3 (1530)✧	21.2 (1450)✧	W, E, S
UX1400HS/MSE✧✧	integrally formed	HDPE	NA	NA	460 (18.0)	NA	31 (2130)	NA	70 (4800)	NA	26.9 (1850)✧	25.6 (1760)✧	W, E, S
UX1500HS/MSE✧✧	integrally formed	HDPE	NA	NA	460 (18.0)	NA	52 (3560)	NA	114 (7810)	NA	43.8 (3000)✧	41.8 (2860)✧	W, E, S
UX1600HS/MSE✧✧	integrally formed	HDPE	NA	NA	460 (18.0)	NA	58 (3980)	NA	144 (9870)	NA	55.4 (3800)✧	52.7 (3620)✧	W, E, S
UX1700HS/MSE✧✧	integrally formed	HDPE	NA	NA	460 (18.0)	NA	75 (5140)	NA	175 (11,990)	NA	67.3 (4610)✧	64.1 (4390)✧	W, E, S
UX1800HS	integrally formed	HDPE	NA	NA	370 (14.5)	NA	95 (6510)	NA	210 (14,390)	NA	77.8 (5330)✧	74.1 (5080)✧	W, E, S
Terrafix Geosynthetics Inc./Terrafix Environmental Technology Inc. | www.terrafixgeo.com													
TBX1500	extruded and integrally formed	PP	NA	NA	39 (1.54)	39 (1.54)	11.5 (788)	12.5 (856)	16.0 (1,096)	16.0 (1,096)	NA	NA	B, E, S, SI
TBX2000	extruded and integrally formed	PP	NA	NA	39 (1.54)	39 (1.54)	14.0 (959)	14.0 (959)	19.0 (1,302)	19.0 (1,302)	NA	NA	B, E, S, SI
TBX2500	extruded and integrally formed	PP	NA	NA	39 (1.54)	39 (1.54)	18.0 (1,233)	20.0 (1,370)	25.0 (1,713)	25.0 (1,713)	NA	NA	B, E, S, SI
TBX3000	extruded and integrally formed	PP	NA	NA	39 (1.54)	39 (1.54)	21.6 (1,480)	22.0 (1,507)	30.0 (2,056)	30.0 (2,056)	NA	NA	B, E, S, SI
TBX11	extruded and integrally formed	PP	NA	NA	24 (1.0)	33 (1.3)	8.5 (580)	13.5 (920)	12.5 (850)	19.0 (1300)	NA	NA	B, E, S, SI
TBX12	extruded and integrally formed	PP	NA	NA	24 (1.0)	33 (1.3)	12.0 (810)	19.5 (1340)	19.0 (1310)	29.0 (1970)	NA	NA	B, E, S, SI
TBX2000L	extruded and integrally formed	PP	NA	NA	66 (2.6)	66 (2.6)	14.0 (959)	14.0 (959)	20.0 (1370)	20.0 (1370)	NA	NA	B, W, SI
TBX3000L	extruded and integrally formed	PP	NA	NA	66 (2.6)	66 (2.6)	21.0 (1439)	21.0 (1439)	30.0 (2056)	30.0 (2056)	NA	NA	B, W, SI
Thrace-LINQ Inc. | www.thracelinq.com													
TLG-11 (type 1)	integrally formed	PP	NA	NA	25 (1.0)	33 (1.3)	9.5 (651)	14.0 (960)	12.6 (863)	19.2 (1316)	NA	NA	SI, B
TLG-12 (type 2)	integrally formed	PP	NA	NA	25 (1.0)	33 (1.3)	13.0 (891)	21.0 (1439)	19.5 (1336)	30.0 (2056)	NA	NA	SI, B

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