

Miragrid® Geogrids for Soil Reinforcement

TenCate Geosynthetics develops and produces materials that function to increase performance, reduce costs and deliver measurable results by working with our customers to provide advanced solutions.

The Difference Mirafi® Dewatering Bags Make:

- **Compliance.** Stormwater management regulations are a key component of the Environmental Protection Agency's (EPA) Clean Water Act. This device helps maintain ground water quality, reduce pollutants, and safely deal with flooding as regulated through the National Pollution Discharge Elimination System (NPDES), Phase I & II.
- **Filtration.** Consistent fabric coverage provides steady filtration and flow characteristics as a best management practice. High permittivity properties provide high flow rates while providing excellent soil particle retention for a stormwater filtering system.

APPLICATIONS

Miragrid® geogrids can be used in most MSE applications for soil reinforcement including internally reinforced soil walls, segmental retaining wall reinforcement, steep reinforced slopes, and reinforcement in a variety of landfill applications including potential voids bridging and veneer stability. When a project specifies for long-term design strength for structure stability use Miragrid® geogrids.

INSTALLATION GUIDELINES

Before placing Miragrid® geogrids, the surface should be cleared of all debris and the foundation base proofrolled. The grids should be rolled out, cut to length, thus eliminating field connections and laid at the proper elevation, location and orientation. Since geogrids vary in strength with roll direction, Miragrid® geogrids should be laid in the direction of main reinforcement.

After rolling out, the geogrid should be tensioned by hand until it is taut, free of wrinkles, and lying flat. Adjacent geogrid rolls may be butted together side-by-side without overlap. Splices in the main reinforcement direction should be avoided.



Certain fill placement procedures may require the reinforcement to be held in place by stakes, sandbags, or fills, as directed by an engineer. A razor blade, sharp knife or scissors may be used to cut the geogrid. Fill placement should follow the standard practice, or as defined in the project specifications or directed by the Engineer. Care should be taken to prevent wrinkles and/or slippage of reinforcement during fill placement and spreading.

These guidelines serve as a general basis for installation. Detailed instructions are available from your TenCate representative.



Miragrid® Geogrids for Soil Reinforcement

Property	Test Method	Units	2XT ⁴	3XT	5XT	7XT	8XT	10XT	20XT	22XT	24XT
Polymer (coating)	-	-	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)
Tensile Strength @ Ultimate (MARV) ¹	ASTM D6637 (Method B)	lbs/ft (kN/m)	2000 (29.2)	3500 (51.1)	4700 (68.6)	5900 (86.1)	7400 (108.0)	9500 (138.6)	13705 (200.0)	20559 (300.0)	27415 (400.0)
Creep Reduced Strength ²	ASTM D5262/D6992	lbs/ft (kN/m)	1389 (20.3)	2431 (35.5)	3264 (47.6)	4097 (59.8)	5139 (75.0)	6597 (96.3)	9517 (138.9)	14277 (208.3)	19038 (277.8)
Long Term Design Strength ³	GRI-GG4	lbs/ft (kN/m)	1203 (17.5)	2104 (30.7)	2826 (41.2)	3547 (51.8)	4449 (64.9)	57121 (83.3)	8240 (120.2)	12361 (180.4)	16483 (240.5)

Packaging	Units	2XT	3XT	5XT	7XT	8XT	10XT	20XT	22XT	24XT
Roll Dimensions ⁵ (width x length)	ft (m)	4 x 50 (1.2 x 15)	6 x 300 (1.8 x 91)	6 x 300 (1.8 x 91)	6 x 300 (1.8 x 91)	6 x 300 (1.8 x 91)	-	-	-	-
		6 x 150 (1.8 x 46)	12 x 150 (3.6 x 46)	12 x 150 (3.6 x 46)	12 x 200 (3.6 x 61)	12 x 200 (3.6 x 61)	12 x 200 (3.6 x 61)	12 x 200 (3.6 x 61)	12 x 200 (3.6 x 61)	12 x 200 (3.6 x 61)
		12 x 150 (3.6 x 46)	12 x 1000 (3.6 x 305)	12 x 1000 (3.6 x 305)	12 x 1000 (3.6 x 305)	12 x 1000 (3.6 x 305)	12 x 1000 (3.6 x 305)	12 x 1000 (3.6 x 305)	-	12 x 1000 (3.6 x 305)
Roll Area	yd ² (m ²)	22 (18)	200 (167)	200 (167)	200 (168)	200 (168)	-	-	-	-
		100 (84)	200 (167)	200 (167)	267 (220)	267 (220)	267 (220)	267 (220)	267 (220)	267 (220)
		200 (167)	1333 (1114)	1333 (1114)	1333 (1114)	1333 (1114)	1333 (1114)	1333 (1114)	-	1333 (1114)
Estimated Roll Weight	lbs (kg)	25 (11)	115 (52)	135 (61)	130 (58)	140 (64)	-	-	-	-
		50 (23)	115 (52)	135 (61)	179 (81)	205 (93)	223 (102)	360 (163)	470 (213)	595 (270)
		109 (49)	670 (304)	831 (376)	846 (383)	975 (442)	1075 (490)	1725 (781)	-	2840 (1287)

¹ Minimum Average Roll Values (MARV) shown above are based on QC Testing per a defined lot not to exceed 12 months. Testing Frequency follows ASTM D4354, Table 1.

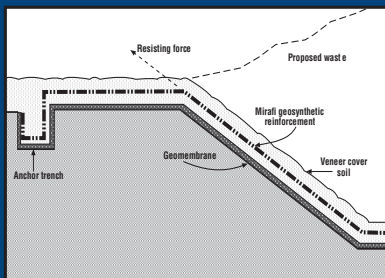
² 75-year design life based on NTPP Report REGEO-2016-01-TenCate-Miragrid® XT.

³ Long Term Design Strength for Type 3 Backfill (Sand, Silt, Clay). $RF_{cs} = 1.44$, $RD_0 = 1.05$, $RF_0 = 1.10$

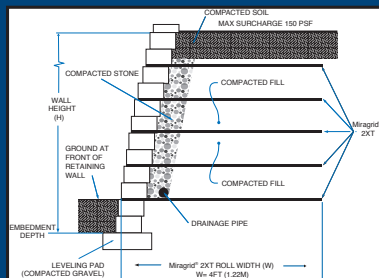
⁴ Note: Values shown for Miragrid 2XT® are both machine and cross-machine direction. Values for other Mirafi® products are machine direction only.

⁵ Available in various roll widths and roll lengths.

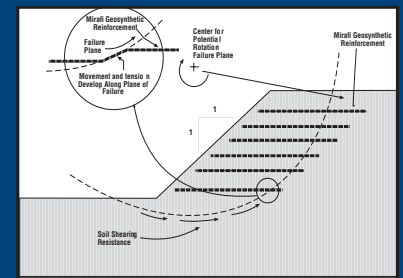
Miragrid® Geogrids Typical Applications



Veneer Reinforcement



Retaining Wall



Steepened Slope

TenCate Geosynthetics Americas assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. TenCate Geosynthetics Americas disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

Mirafi® is a registered trademark of Nicolon Corporation.

© 2020 Nicolon Corporation. All Rights Reserved

PDS.GRID(M)0920

365 South Holland Drive Tel +1 706 693 2226
Pendergrass, GA 30567 www.tencategeo.us

