

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 Miragrid® Geogrids Make:

- High long-term design strengths (LTDS). Miragrid® geogrids have more than 230,000 hours of tension creep testing performed at an independent test laboratory. Credible, dependable long-term strength assured.
- Cost effective. Creep resistant polyester fibers provide higher allowable tensile strength, minimizing the required number of geogrid layers. Wide rolls significantly reducing placement time, lowering cost.
- Light weight, easy to handle. No sharp edges.
- Flexible, tough. Minimizes movement of soil structure.
- Custom fabrication. Rolls fabricated to meet your specific project requirements.
- Miragrid® geogrids provide the widest strength range, and are the highest strength

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.



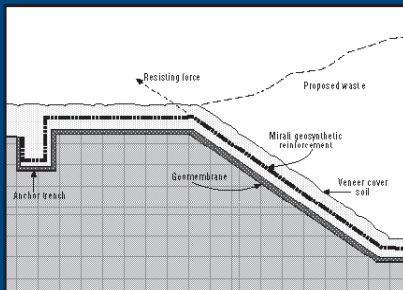
Miragrid® Geogrids for Soil Reinforcement

Property	Test Method	Units	2XT ⁵	3XT ⁵	5XT ⁵	7XT ⁵	8XT ⁵	10XT ⁵	20XT ⁵	22XT ⁵	24XT ⁵
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 (29.0)	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		lbs/ft (kN/m)	1203 (17.5)	2104 (30.7)	2826 (41.2)	3547 (51.8)	4449 (64.9)	5712 (83.3)	8240 (120.2)	12361 (180.4)	16483 (240.5)

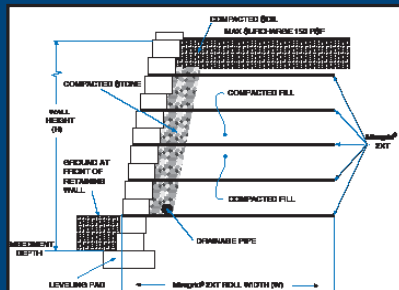
Packaging	Units	2XT ⁵	3XT ⁵	5XT ⁵	7XT ⁵	8XT ⁵	10XT ⁵	20XT ⁵	22XT ⁵	24XT ⁵															
Roll Width	ft (m)	4x50 (1.2)	6x150 (1.8)	12x150 (3.6)	6 (1.8)	12 (3.6)	6 (1.8)	12 (3.6)	12 (3.6)	12 (3.6)	12 (3.6)														
Roll Length	ft (m)	50 (15)	150 (46)	1000 (305)	150 (46)	300 (91)	1000 (305)	150 (46)	300 (91)	1000 (305)	200 (61)	1000 (305)													
Estimate Roll Weight	lbs (kg)	25 (11)	50 (23)	109 (49)	115 (52)	115 (52)	670 (304)	135 (61)	135 (61)	831 (376)	130 (58)	179 (81)	846 (383)	140 (64)	205 (93)	975 (442)	255 (116)	1235 (559)	360 (163)	1725 (781)	470 (213)	595 (270)	2840 (1287)		
Area	yd ² (m ²)	22 (18)	100 (84)	109 (167)	200 (167)	200 (1114)	1333 (167)	200 (167)	200 (1114)	1333 (168)	200 (1114)	267 (220)	267 (1114)	1333 (220)	267 (1114)	1333 (220)	267 (1114)	1333 (220)	267 (1114)	1333 (220)	267 (1114)	1333 (220)	267 (1114)	1333 (220)	267 (1114)

¹Minimum 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.
²75-year design life based on NTPRP Report REGEO-2016-01-[TenCate-Miragrid® XT].
³Long Term Design Strength for Type 3 Backfill (Sand, Silt, Clay). $RF_{CS} = 1.44$, $RD_{10} = 1.05$, $RF_D = 1.10$
⁴Note: Values shown for Miragrid 2XT⁵ are both machine and cross-machine direction. Values for other Mirafi[®] products are machine direction only.
⁵Available in various roll widths and roll lengths.

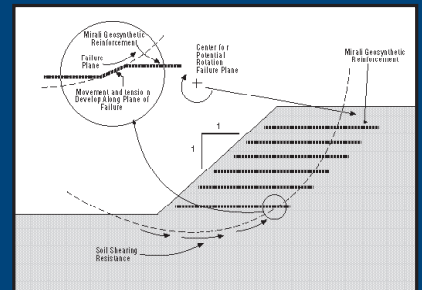
Miragrid® Geogrids Typical Applications



Veneer Reinforcement



Retaining Wall



Steepened Slope

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PDS.GRID(M)0620

365 South Holland Drive
Pendergrass, GA 30567





LOCATIONS & CONTACT INFO

ASP ENTERPRISES

aspent.com
salesasp@aspent.com

BOWMAN CONSTRUCTION SUPPLY

bowmanconstructionsupply.com
salesbcs@bowmanconstructionsupply.com

QUICK SUPPLY CO.

quicksupplyco.com
salesquick@quicksupplyco.com

CASCADE GEOSYNTHETICS

cascadageos.com
salescascade@cascadageos.com

St. Louis, MO 636.343.4357
Omaha, NE 402.861.8579

Denver, CO 303.696.8960
Loveland, CO 970.535.0863

Des Moines, IA 515.289.1271

Portland, OR 971.339.1020

Kansas City, MO 816.554.1191
Wichita, KS 316.393.1554

Colorado Springs, CO 719.257.7840

Salt Lake City, UT 435.276.0820

SOLUTIONS WE SUPPLY

GEOSYNTHETICS

Filter Fabrics
Stabilization Fabrics

Geogrids

- Road Grids
- Wall Grids
- Slope Stabilization

Specialty Fabrics

Composite Geomembranes

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

SEDIMENT CONTROL

Inlet Protection

- Grated Inlet, Curb Inlet, Area Inlet Protection

Ditch Checks

- Triangle Silt Dike
- GeoRidge

Perimeter Protection

- High and Low-Porosity Silt Fence, Straw Wattles, Silt Socks
- Safety Fence

Flocculants & Water Treatment

- Polymer-Based & Natural Flocculants

Sediment Basin Skimmers

Dewatering Bags

Trackout Control

- FODS
- Rumble Grates

Turbidity Curtains

EROSION CONTROL

Basic Hydraulically Applied Mulches

- Wood
- Paper
- Blends
- Straw

High-Performance Hydraulically Applied Products

- BFM
- FGM
- Additives & Tackifiers

Temporary Erosion Control Blankets

- Coir & Jute Mat/Nettings
- Short-Term ECBs
- Extended-Term ECBs

Permanent Erosion Control Blankets

- Turf Reinforcement Mats
- HP-TRMs
- Anchor Reinforced Vegetation System

Structural BMPs

- Transition Mats
- Geoweb Cellular Confinement
- Composite Vegetated Armor System
- Flex MSE Vegetated Wall System
- Articulated Concrete Block
- Gabions
- Grout-Filled Geotextile Mats

Vegetation Establishment

- Native Seed & Turf Seed
- Fertilizers
- Organic Soil Additives
- Stratavault Soil Cells

STORMWATER MANAGEMENT

Water Quality

- Inlet Filter Boxes
- Pre-Treatment Chamber
- Nutrient Separating Baffle Boxes
- High-Flow Biofiltration Media
- Hydrodynamic Separators
- Stratavault

Water Quantity

- Modular Underground Storage Systems
- Chamber Detention Systems

Drainage

- HDPE Swale Liner
- Pipe & Fittings
- Drainage Composites
- Strip Drain

Inlet Structures

- PVC
- Drain Basis, In-Line Drains
- Landscape

Permeable Pavers

- Permeable Articulating Concrete Block
- Grass Pavers
- Gravel Pavers
- Concrete Pavers

SPECIALTY

Natural & Synthetic Coir Fiber Logs

Vegetated Reinforced Soil Slopes

Soil Anchors

Root Barrier System

AquaBlok

Muscle Wall

We are full line distributors of construction materials for all project types. Contact us for assistance with a project. From specification and development to installation and completion, we're here to help with all of your site solution needs.

**GEOSYNTHETICS | EROSION CONTROL | STORMWATER MANAGEMENT
SEDIMENT CONTROL | REVEGETATION & SOIL AMENDMENTS**