

# product Miragrid® XT Geogrids

## for Soil Reinforcement

### PRODUCT DESCRIPTION

Miragrid® XT products are high strength, high tenacity, high molecular weight polyester geogrids in a full range of tensile strengths to meet the most demanding applications of soil reinforcement.

Miragrid® XT geogrids are woven and then coated with a polymer coating to provide dimensional stability. Miragrid® XT geogrids provide the highest tensile strengths of any reinforcement geogrid in the industry. The high molecular weight, high tenacity polyester yarns used in the Miragrid® geogrids result in excellent creep resistance. The high molecular weight polyester fibers are also resistant to the potential degradative effects of hydrolysis and chemical attack for the range of pH normally encountered in reinforced soil environments.

### FEATURES AND BENEFITS

- **No recoiling.** Remains in place after being installed; does not roll back.
- **Flexible and tough.** Delivers immediate soil geogrid stress transfer ensuring minimal movement of soil structure.
- **Lightweight.** At least 33% lighter than most rigid geogrids.
- **Cost effective.** Creep resistant polyester fibers provide a higher allowable tensile strength, minimizing the required number of geogrid layers.
- **High Long Term Design Strengths**

(LTDS). Miragrid®'s long term design strengths are backed up by more than 60,000 hours of tension creep testing performed at an outside, independent test laboratory so you can be assured of credible, dependable long term design strengths.

- **Easy handling.** No sharp edges which may injure workers.
- **Wide rolls.** Rolls are wider than most rigid geogrids, significantly reducing placement time thus lowering cost.
- **Custom fabrication of rolls:** Fabricated to the specific requirements of the project.

*Miragrid® geogrids provide the widest strength range, and are the highest strength geogrid products on the market today.*

### APPLICATIONS

Miragrid® geogrids are used in a wide variety of soil reinforcement applications 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. Applications where long term design strength is necessary for the stability of the structure are ideal applications where Miragrid® geogrids can be used.

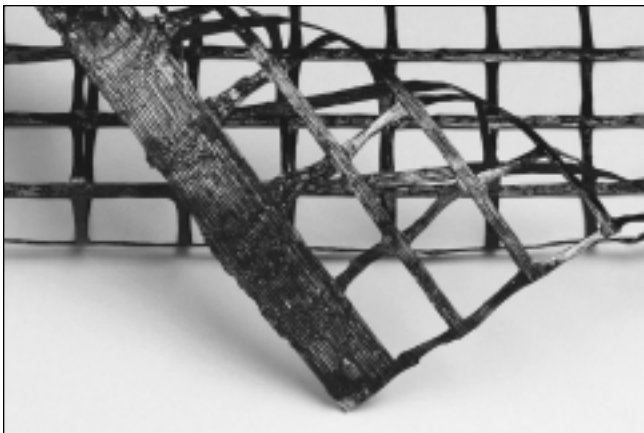
### INSTALLATION GUIDELINES

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® should be laid in the direction of main reinforcement.

After rolling out, the material 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 material. 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 representative.*



Miragrid® 5XT



Miragrid® 18XT

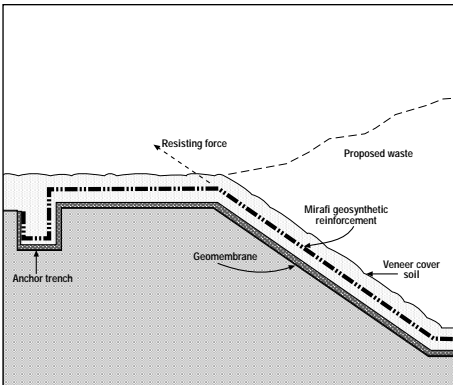


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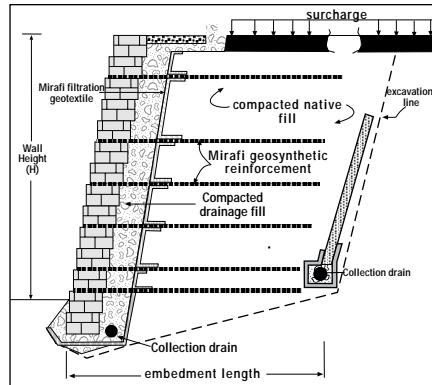
Property**	Test Method	Units	2XT	3XT	5XT	7XT	8XT	10XT	18XT	20XT	22XT	24XT
Polymer (coating)	-	-	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)	PET (PVC)
Ultimate Wide Width Tensile Strength	ASTM D 4595	kN/m (lbs/ft)	29.2 (2000)	40.9 (2800)	52.4 (3590)	63.5 (4350)	90.9 (6230)	121.1 (8300)	136.6 (9360)	181.2 (12,420)	259.1 (17,760)	370.3 (25,380)
Creep Reduced Strength	ASTM D 5262	kN/m (lbs/ft)	17.5 (1200)	24.5 (1680)	31.4 (2154)	38.1 (2610)	54.5 (3738)	72.7 (4980)	81.9 (5616)	105.4 (7221)	150.7 (10,326)	215.3 (14,756)
Long Term Design Strength (In Type 3 Backfill) (sand, silt, clay)	GRI-GG4	kN/m (lbs/ft)	12.2 (839)	19.4 (1328)	25.3 (1733)	31.5 (2157)	45.1 (3089)	60.1 (4116)	67.7 (4641)	87.1 (5968)	124.5 (8534)	177.9 (12,195)
Packaging	Units		2XT	3XT	5XT	7XT	8XT	10XT	18XT	20XT	22XT	24XT
Roll Width	m (ft)		1.8 (6.0)	3.6 (12)	3.6 (12)	3.6 (12)	3.6 (12)	3.6 (12)	3.6 (12)	3.6 (12)	3.6 (12)	3.6 (12)
Roll Length	m (ft)		45.7 (150)	45.7 (150)	45.7 (150)	61 (200)	61 (200)	61 (200)	61 (200)	61 (200)	61 (200)	61 (200)
Estimated Roll Weight	kg (lbs)		30 (67)	55 (123)	60 (133)	86 (190)	95 (210)	116 (258)	149 (328)	179 (393)	242 (533)	338 (745)
Area	m <sup>2</sup> (yd <sup>2</sup> )		82.3 (100)	164.5 (200)	164.5 (200)	220 (266.6)	220 (266.6)	220 (266.6)	220 (266.6)	220 (266.6)	220 (266.6)	220 (266.6)

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

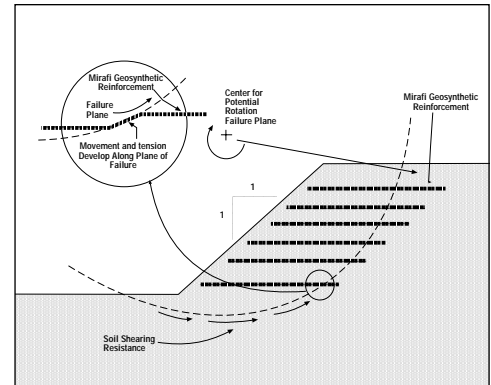
### Miragrid® XT Typical Applications



**Veneer Reinforcement**



**Retaining Wall**



**Steepened Slope**

[www.tcnicolon.com](http://www.tcnicolon.com)

#### TECHNICAL SERVICES

Complete technical assistance is available from Ten Cate Nicolon and its sales representatives. Service include assistance during design and specification stages as well as initial stages of installation.

#### WARRANTY

Ten Cate Nicolon warrants that the product that it sells will conform to the specifications published in this literature. For information on limitations to this warranty, contact Ten Cate Nicolon.

#### CORPORATE OFFICE

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