

TerraGrid PET 100/100 5.95m x 100m

Product Images





Short Description

TerraGrid HSG geogrid, manufactured from high tenacity polyester (PET) yarns is used to reinforce soils where high tensile strength with low elongation is required.

Description

PET HIGH STRENGTH COATED GEOGRID

TerraGrid HSG is a high strength coated geogrid manufactured from high tenacity polyester (PET) yarns, knitted to form a structured grid.

TerraGrid HSG is used to reinforce soils where extremely high tensile strength with low elongation is required. The range of products is from 100kN through to 1000kN suitable for solving complex engineering problems.

Product strength and stiffness are affected both by temperature and by rate or duration of loading. Therefore, it is important that standard methods of tensile testing are used, so that temperature and strain rate are defined.

TerraGrid PET High Strength Grid, quality control (QC) tensile testing is carried out using the method given in International Standard BS EN ISO 10319:1996. This is a wide width method with specimen width of 200mm. Strain rate is 20% per minute and test temperature is 20°C.

APPLICATIONS

- Reinforcement of granular soils
- Embankment reinforcement
- Retaining structures
- Basal reinforcement
- Piling platforms
- Subgrade improvement

STORAGE, HANDLING, PLACEMENT, OVERLAPPING AND INSTALLATION

a) Storage

To conserve their initial properties, TerraGrid HSG:

- Must not be exposed to the weather
 - Avoid tearing and perforation to their plastic wrapping
 - Stored on pallets (not in contact with water) and protected from ultraviolet rays by an opaque wrapping.
- b) Handling

TerraGrid HSG are generally supplied in rolls 50m -100m lengths and 5.0m -5.3m widths. Roll weights vary from 100kg to 1500kg. While some can therefore be manhandled, others will require transport and lifting equipment. Rolls incorporate a core suitable for lifting by simple site handling equipment. In the case of products with non structural core special dispensers are available to assist installation.

c) Placement

TerraGrid HSG are placed in formation levels previously compacted and levelled that contain no projections likely to damage the geogrid layer. They are reeled off the roll by hand or using plant, and are cut to length as required.

Check that the laying direction matches the design, for the strength of products is often greater in the roll direction (direction of production, as wound onto spools).

d) Overlapping

Overlapping rolls in the transverse direction to transfer high strength is not achieved by overlapping. Length of overlap in MD may be calculated by the design engineer for certain applications. Typical cross overlaps is 0.3m to 1.0m.

e) Installation

As fill is placed on TerraGrid HSG it is recommended that it should be laid flat and wrinkle free, stabilised by pinning or placement of soil heaps to prevent movement from wind and installation equipment.

Typical sequence of work could be as follows:

- Fill to be used is graded and compacted, before TerraGrid HSG is placed
- The TerraGrid HSG is placed and held taught by pinning and or fill placement
- New fill layer graded, placed and compacted on the TerraGrid HSG
- Compaction of soil should be conducted in accordance to specification

DOWNLOADABLE RESOURCES

[TerraGrid® HSG Uniaxial](#)

[TerraGrid® HSG Biaxial](#)

SPECIFICATIONS

Properties	Symb	Unit	40/40	60/60	80/80	100/100	150/150	200/200	300/300	400/400
Aperture Size		mm	25/25	25/25	25/25	25/25	25/25	25/25	25/25	25/25
Elongation (+/- 2%)		%	<10	<10	<10	<10	<10	<10	<10	<10
Ultimate Tensile Strength MD	Tu	kN/m	40/40	60/60	80/80	100/100	150/150	200/200	300/300	400/400
Characteristic tensile creep rupture strength @ 120 years	Tcr	kN/m	27.6	41.4	55.2	69	103.4	137.9	206.9	275.9

Characteristic initial tensile strength with maximum 5% strain in MD (40% of Tu)	Tcs	kN/m	16.0	24.0	32.0	40.0	60.0	80.0	120.0	160.0
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Additional Information

CODE	GGPET100/100-6/100
U.O.M	Roll
Weight	250
Length	100 m
Swatch	no_selection

