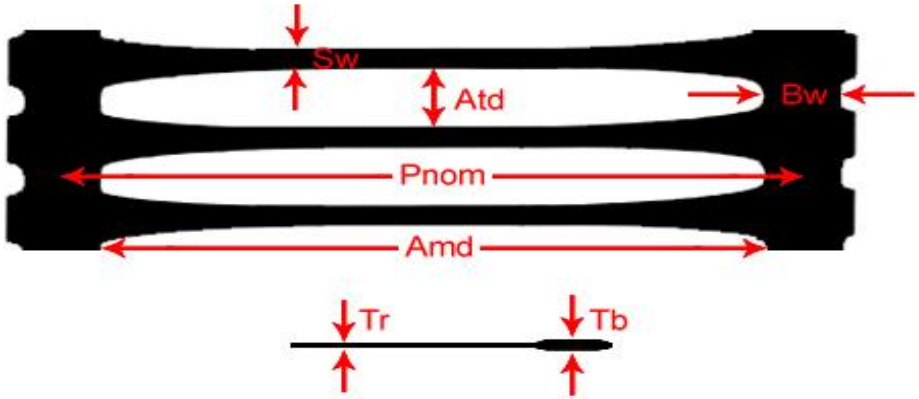
TECHNICAL DATA SHEET (TDS)

Product: HDPE Uniaxial Geogrid

Brand	Geoleed
Material	High-Grade Polypropylene (HDPE)
Application	Base Reinforcement / Soil Stabilization

Description: HDPE Uniaxial Geogrid is a high-density polyethylene (HDPE) uniaxial geogrid specifically engineered for long-term load-bearing applications. It is manufactured using a unique punching and drawing process to create a monolithic structure with superior creep resistance.

1. PHYSICAL PROPERTIES



	Atd	Bw	Sw	Tb	Tr	Amd	Pnom
PE50	14.0	18	3.4	3.2	1.0	320	340
PE60	14.0	18	3.4	3.5	1.1	320	340
PE90	14.0	18	3.4	4.5	1.5	320	340
PE120	14.0	18	3.4	5.3	2	320	340
PE160	14.0	18	3.4	7.7	2.5	320	340

Property	Test Method	Unit	Typical Value
Polymer Type	-	-	High Density Polyethylene (HDPE)
Structure	-	-	Uniaxial (Monolithic)
Aperture Shape	-	-	Rectangular / Oval
Minimum Carbon Black	ASTM D4218	%	2
Roll Width	-	m	1or2
Roll Length	-	m	100

*2. MECHANICAL PROPERTIES (MARV)**

Property	Test Method	Unit	Value (MD)	Value (MD)	Value (MD)	Value (MD)
Ultimate Tensile Strength	ASTM D6637	kN/m	60	90	**120**	160
Tensile Strength @ 2% Strain	ASTM D6637	kN/m	16	28	38	47
Tensile Strength @ 5% Strain	ASTM D6637	kN/m	31	54	75	93
Peak Elongation	ASTM D6637	%	≤ 12	≤ 12	≤ 12	≤ 12
unction Efficiency	GRI GG2-87	%	93	93	93	93
Long-Term Allowable Design Load	Calculation	kN/m	~34.2	~53.7	~68.4	~87.1

3. LONG-TERM DESIGN PROPERTIES (LTDS)

Property	Test Method	Unit	Value
Creep Reduction Factor (RFCR)	ASTM D5262	-	1.45 (120 years)
Installation Damage (RFID)	ASTM D5818	-	1.10 (Sand/Gravel)
Chemical/Bio Decay (RFCBD)	-	-	1.10 (pH 2-12)

Note:
Please provide the product width and length as required.
The geogrid reinforcement bars can be produced in lengths of up to 45cm.

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