

StrataGrid™ uniaxial (SGU) is a polyester (PET) geogrid reinforcement for soil. These high-performance geogrids are constructed of high molecular weight polyester yarns knitted with a proprietary coating. SGU grid is engineered to be mechanically and chemically durable, in both the harsh construction installation phase and in the aggressive soil environments.

	Unit	SGU 40	SGU 60	SGU 80	SGU 100	SGU 120	SGU 150	SGU 180	SGU 200	SGU 250	SGU 300	SGU 350	SGU 400	
Mechanical properties														
Nominal tensile strength (ASTM D 6637 / EN ISO 10319) (min.)	MD CMD	kN/m	40 20	60 20	80 30	100 30	120 30	150 30	180 30	200 30	250 30	300 30	350 30	400 30
Elongation at nominal strength (ASTM D 6637 / EN ISO 10319) (± 3%)	MD	%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Creep reduction factor (at 20°C, 120 years design life)			1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
Creep limited strength	MD	kN/m	28.2	42.3	56.3	70.4	84.5	105.6	126.8	140.8	176.1	211.3	246.5	281.7
Partial factor - installation damage (ASTM D 5818) In clay, silt or sand			1.10	1.10	1.02	1.02	1.02	1.02	1.02	1.06	1.06	1.06	1.06	1.06
Partial factor - environmental effect 5 < pH < 8			1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Physical properties														
Roll width		m	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Roll length		m	100	100	100	100	100	100	100	100	100	100	100	100
Roll Weight (± 5%)		kg	79	96	119	141	165	187	206	224	269	309	365	393
Molecular properties														
Molecular weight (GRI GG8 / ASTM D4603)		g/mol	min. 25,000											
Carboxyl end group (CEG) (GRI GG7 / ASTM D7409)		mmol/kg	max. 30											

Notes

- The above properties might change at the time of the manufacturing, storing, handling or shipping. The values are subject to change as per the discretion of the company.
- Varying roll widths can be provided on order - 1.9m / 3.8m / 5m / 5.7m
- Customised rolls with varying lengths or master rolls can be manufactured on order.
- Tested in GAI-LAP and NABL accredited laboratories.



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	Unit		SGU 450	SGU 500	SGU 600	SGU 700	SGU 800
Mechanical properties							
Nominal tensile strength (ASTM D 6637 / EN ISO 10319) (min.)	MD CMD	kN/m	450 30	500 30	600 30	700 30	800 30
Elongation at nominal strength (ASTM D 6637 / EN ISO 10319) (\pm 3%)	MD	%	10%	10%	10%	10%	10%
Creep reduction factor (at 20°C, 120 years design life)			1.42	1.42	1.42	1.42	1.42
Creep limited strength	MD	kN/m	316.9	352.1	422.5	493.0	563.4
Partial factor - installation damage (ASTM D 5818) In clay, silt or sand			1.06	1.06	1.06	1.06	1.06
Partial factor - environmental effect 5 < pH < 8			1.10	1.10	1.10	1.10	1.10
Physical properties							
Roll width		m	3.8	3.8	3.8	3.8	3.8
Roll length		m	100	100	100	100	100
Roll Weight (\pm 5%)		kg	426	474	549	604	699
Molecular properties							
Molecular weight (GRI GG8 / ASTM D4603)		g/mol	min. 25,000				
Carboxyl end group (CEG) (GRI GG7 / ASTM D7409)		mmol/kg	max. 30				

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