



## StrataGrid High Strength PET Geogrid SGU Range

StrataGrid is a geogrid made with high tenacity PET yarns. It is especially designed for reinforcement of walls, slopes and embankments on soft soils, road foundations, and supporting structures, fills and slopes

MD = Machine direction and CD = Cross direction

Tensile Strength MD MARV can be verified with batch test data for every project

Tensile Strengths which fall between those listed may also be used with the appropriate reduction factors listed here calculated as follows

Tensile Strength MD / (RFCR\*RFID\*RFD) Contact Cirtex Industries Ltd to verify calculations 0800 247 839

Property	Standard	Unit	SGU20	SGU35	SGU40	SGU55	SGU60	SGU80	SGU100	SGU110	SGU120	SGU150	SGU180	SGU200	SGU250	SGU300	SGU350	SGU400
Mechanical Properties																		
Tensile Strength MD MARV	ASTM D6637-B	kN/m	20	35	40	55	60	80	100	110	120	150	180	200	250	300	350	400
Tensile Strength CD MARV	ASTM D6637-B	kN/m	20	20	20	20	20	30	30	30	30	30	30	30	30	30	30	30
Elongation at designated strength (+/- 2%)	ASTM D6637-B	%	10	10	10	10	10	10	10	10	10	10	10	11	11	11	11	11
Reduction Factor CR - Creep Rupture @ 20° C																		
114 year design life			1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
Reduction Factor ID - Installation damage																		
Silty Sand ≤ 4.75mm			1.1	1.1	1.1	1.1	1.1	1.02	1.02	1.02	1.02	1.02	1.02	1.06	1.06	1.06	1.06	1.06
Gravelly Sand ≤ 10mm			1.12	1.12	1.12	1.12	1.12	1.06	1.06	1.06	1.04	1.04	1.04	1.1	1.1	1.1	1.1	1.1
Aggregate < 75mm			1.19	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.1	1.1	1.1	1.1	1.1
Reduction Factor D - Durability pH 4 - 9*																		
for 100 year design life			1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Long Term Design Strength in Silty Sand																		
100 year design life		kN/m	11.9	20.8	23.8	32.7	35.7	51.3	64.1	70.5	76.9	96.2	115.4	123.4	154.3	185.1	216.0	246.8
Long Term Design Strength in Gravelly Sand																		
100 year design life		kN/m	11.7	20.4	23.4	32.1	35.0	49.4	61.7	67.9	75.5	94.3	113.2	118.9	148.6	178.4	208.1	237.8
Long Term Design Strength in Aggregates < 75mm																		
100 year design life		kN/m	11.0	19.2	22.0	30.2	33.0	45.1	56.4	62.0	70.7	88.4	106.1	118.9	148.6	178.4	208.1	237.8

DISCLAIMER: All information provided in this publication is correct to the best knowledge of the company and is given out in good faith. The information presented herein is intended only as a general guide to the use of such products and no liability is accepted by Cirtex Industries Ltd for any loss or damage however arising, which results either directly or indirectly from the use of such information. Cirtex Industries Ltd have a policy of continuous development so information and product specifications may change without notice.

\*These reduction factors assume 100 years at a constant pH. Degradation of PET is a function of a number of factors including time, temperature, presence of water and pH level. StrataGrid may be used in higher pH applications with an applicable reduction factor approved by the design engineer, taking into account site specific conditions



## StrataGrid High Strength PET Geogrid

StrataGrid is a geogrid made with high tenacity PET yarns. It is especially designed for reinforcement of walls, slopes and embankments on soft soils, road foundations, and supporting structures, fills and slopes

MD = Machine Direction and CD = Cross Direction

Tensile Strength MD MARV can be verified with batch test data for every project

Tensile Strengths which fall between those listed may also be used with the appropriate reduction factors listed here calculated as follows

Tensile Strength MD / (RFCR\*RFID\*RFD) Contact Cirtex Industries Ltd to verify calculations 0800 247 839

Property	Standard	Unit	SGB20	SGB30	SGB40	SGB50	SGB60	SGB65	SGB80	SGB100
Mechanical Properties										
Tensile Strength MD MARV	ASTM D6637-B	kN/m	20	30	40	50	60	65	80	100
Tensile Strength CD MARV	ASTM D6637-B	kN/m	20	30	40	50	60	65	80	100
Elongation at designated strength (+/- 2%)	ASTM D6637-B	%	10	10	10	10	10	10	10	10
Reduction Factor CR - Creep Rupture @ 20° C										
114 year design life			1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
Reduction Factor ID - Installation damage										
Silty Sand ≤ 4.75mm			1.1	1.1	1.1	1.1	1.1	1.02	1.02	1.02
Gravelly Sand ≤ 10mm			1.12	1.12	1.12	1.12	1.12	1.06	1.06	1.06
Aggregate < 75mm			1.19	1.19	1.19	1.19	1.19	1.16	1.16	1.16
Reduction Factor D - Durability pH 4 - 9*										
for 100 year design life			1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Long Term Design Strength in Silty Sand										
100 year design life		kN/m	11.9	17.8	23.8	29.7	35.7	41.7	51.3	64.1
Long Term Design Strength in Gravelly Sand										
100 year design life		kN/m	11.7	17.5	23.4	29.2	35.0	40.1	49.4	61.7
Long Term Design Strength in Aggregates < 75mm										
100 year design life		kN/m	11.0	16.5	22.0	27.5	33.0	36.6	45.1	56.4

DISCLAIMER: All information provided in this publication is correct to the best knowledge of the company and is given out in good faith. The information presented herein is intended only as a general guide to the use of such products and no liability is accepted by Cirtex Industries Ltd for any loss or damage however arising, which results either directly or indirectly from the use of such information. Cirtex Industries Ltd have a policy of continuous development so information and product specifications may change without notice.

\*These reduction factors assume 100 years at a constant pH. Degradation of PET is a function of a number of factors including time, temperature, presence of water and pH level. StrataGrid may be used in higher pH applications with an applicable reduction factor approved by the design engineer, taking into account site specific conditions

Cirtex Industries Ltd and StrataIndia are ISO 9001 Quality Certified Suppliers