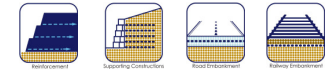




# ACE GEOSYNTHETICS



## ACEGrid® Specification

ACEGrid® is woven from high-tenacity, multifilament polyester yarns and coated with polymer which can provide best resistance of UV and durability. High-strength, high modulus, low creep behavior all are the advantages of ACEGrid®. ACEGrid® is predominantly used in Mechanically Stabilized Earth (MSE) and Reinforced Soil Slope (RSS) structures.

### Product Properties

Physical Properties	Units	GG20-II	GG30-I	GG40-I	GG60-I	GG80-I	GG100-I	GG150-I	GG200-I	Test Method
Material		High Tenacity Polyester Yarn Coated With Polymeric								
Aperture Size - MD ± 20%	mm	27	25	25	24	23	21	20	19	
Aperture Size - CD ± 20%	mm	28	28	28	28	28	28	28	28	

### PET Yarns Properties

Carboxyl End Group(CEG)	mmol/kg	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	GRI GG7
Molecular Weight	Mn	> 25000	> 25000	> 25000	> 25000	> 25000	> 25000	> 25000	> 25000	GRI GG8

### Mechanical Index Properties

Tensile Strength , T <sub>ult</sub> - MD min	kN/m	20	30	40	60	80	100	150	200	ASTM D6637
Tensile Strength , T <sub>ult</sub> - CD min	kN/m	20	30	30	30	30	30	30	30	ASTM D6637
Elongation - MD	%	10	10	10	10	10	10	10	10	ASTM D6637
Tensile Strength at 2% Strain- MD min	kN/m	≥ 5	≥ 8	≥ 10	≥ 15	≥ 20	≥ 25	≥ 38	≥ 50	ASTM D6637
Tensile Strength at 5% Strain- MD min	kN/m	≥ 10	≥ 15	≥ 20	≥ 30	≥ 40	≥ 50	≥ 75	≥ 100	ASTM D6637

### Long-Term Design Properties

Creep Reduction Factor, RF <sub>CR</sub>	(120yrs)	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	ASTM D5262
Installation Damage Reduction Factor, RF <sub>ID</sub>		1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	ASTM D5818
Durability Reduction Factor, RF <sub>D</sub>		1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	
Reduction Factor, RF=RF <sub>CR</sub> XRF <sub>ID</sub> XRF <sub>D</sub>		1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	
Long Term Design Strength, T <sub>dl</sub>	kN/m	12	18	24	36	47	59	89	118	

### Dimensional Characteristics

Length	m	50/100	50/100	50/100	50/100	50/100	50/100	50/100	50/100	
Width	m	4	4	4	4	4	4	4	4	
Area	m <sup>2</sup>	200/400	200/400	200/400	200/400	200/400	200/400	200/400	200/400	
20' container capacity - approx.	m <sup>2</sup>	24,000	20,000	18,200	18,600	15,600	13,800	12,400	9,200	
40' container capacity - approx.	m <sup>2</sup>	48,000	40,000	36,400	37,200	31,200	27,600	24,800	18,400	
40HQ container - approx.	m <sup>2</sup>	52,000	44,000	40,000	40,800	36,800	31,200	28,000	21,600	
40' container with 3.9 width - approx.	m <sup>2</sup>	70,200	58,500	53,235	54,405	45,630	40,365	36,270	26,910	
40'HQ container with 3.9 width - approx.	m <sup>2</sup>	76,050	64,350	58,500	59,670	53,820	45,630	40,950	31,590	

### Notes:

- The values given are indicative and correspond to MARV obtained in ACE laboratory. The right is reserved to make changes without notice.
- Information contained in this publication is accurate to the best of the knowledge of ACE Geosynthetics. Any information or advice obtained from ACE Geosynthetics otherwise than by means of this publication and weather relating to ACE Geosynthetics materials or other materials, is also given in good faith. However, it remains at all times, the responsibility of the customer to ensure that ACE Geosynthetics material suitable for the particular purpose intended. Insofar as materials not manufactured or supplied by ACE Geosynthetics are used in conjunction with or instead of ACE Geosynthetics materials, the customer should ensure that he has received from the manufacture or supplier all the technical data and other information relating to such supplied, the application or processing of the products described herein, the use of other materials in lieu of ACE Geosynthetics materials in conjunction with such other materials.



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TEL: 886-4-26595926 FAX: 886-4-26595935

E-mail: sales@geoace.com

http://www.geoace.com