

ACEGrid® Specification Biaxial Geogrid¹

ACEGrid® GG-Series is woven by high-tenacity, multifilament polyester yarns and coated with durable polymer which can provide best resistance of UV and durability. ACE provides wide strength range of ACEGrid® GG-Series with high quality advantages - high tensile modulus and low creep behaviors..., etc. ACEGrid® GG-Series successfully offer the stability to earth structures, such as Reinforced Retaining Wall or Steep Slope, Road, Bridge or Pavement Construction.

Product Properties

Physical Properties	Units	GG20-II	GG40-II	GG60-II	GG80-II	GG100-II	GG150-II	GG200-II	Test Method
Material		High Tenacity Polyester Yarn Coated with Durable Polymer							
Aperture Size - MD ± 20%	in	1.1	1	0.9	0.9	0.8	0.8	1.1	
Aperture Size - CD ± 20%	in	1.1	1.1	0.9	1	0.9	0.9	0.9	
PET Yarn Properties									
Carboxyl End Group(CEG)	mmol/kg	<30	<30	<30	<30	<30	<30	<30	GRI GG7
Molecular Weight	Mn	>25000	>25000	>25000	>25000	>25000	>25000	>25000	GRI GG8
Mechanical Index Properties									
Tensile Strength ,T _{ult} - MD min	lb/ft	1369	2737	4106	5475	6844	10266	13687	ASTM D6637
Tensile Strength ,T _{ult} - CD min	lb/ft	1369	2737	4106	5475	6844	10266	13687	ASTM D6637
Elongation - MD	%	10	10	10	10	11	12	13	ASTM D6637
Elongation - CD	%	10	10	10	10	11	13	14	ASTM D6637
Tensile Strength at 2% Strain- MD min	lb/ft	342	684	1027	1369	1369	2053	2738	ASTM D6637
Tensile Strength at 2% Strain- CD min	lb/ft	342	548	821	1027	1232	1574	1916	ASTM D6637
Tensile Strength at 5% Strain- MD min	lb/ft	684	1369	2053	2738	2738	4106	5475	ASTM D6637
Tensile Strength at 5% Strain- CD min	lb/ft	684	1095	1643	2053	2464	3148	3833	ASTM D6637
Long Term Design Strength, T _{al} ²	lb/ft	810	1619	2429	3239	4049	6074	8098	
Dimensional Characteristics									
Length	yd	55 / 109	55 / 109	55 / 109	55 / 109	55 / 109	55	55	
Width	yd	4.3	4.3	4.3	4.3	4.3	4.3	4.3	
Area	yd ²	236.5 / 468.7	236.5 / 468.7	236.5 / 468.7	236.5 / 468.7	236.5 / 468.7	236.5	236.5	

Notes:

1. Tensile strength of biaxial ACEGrid®, ranging from 1,369 lb/ft to 27,375 lb/ft, can be customized according to client's requirement.
2. LTDS (Long-Term Design Strength) of ACEGrid® is calculated base on FHWA-NHI-00-043. The long-term design strength value has been compounded by reduction factors, such as installation damage (RF_{ID}), creep (RF_{CR}), durability(RF_D).
3. The values given are indicative and correspond to MARV obtained in ACE laboratory. The right is reserved to make changes without notice.
4. 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