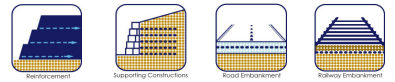
ACE Geosynthetics



ACEGrid® Specification

Uniaxial Geogrid[1]

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	GG30-I	GG40-I	GG60-I	GG80-I	GG100-I	GG150-I	Test Method
Material		High Tenacity Polyester Yarn Coated with Durable Polymer						
Aperture Size - MD ± 2mm	in	1.0	1.0	0.9	0.9	0.8	0.8	
Aperture Size - CD ± 2mm	in	1.1	1.1	1.1	1.1	1.1	1.1	
PET Yarn Properties								
Carboxyl End Group(CEG)	mmol/kg	<30	<30	<30	<30	<30	<30	GRI GG7
Molecular Weight	Mn	>25000	>25000	>25000	>25000	>25000	>25000	GRI GG8
Mechanical Index Properties								
Tensile Strength ,T_{ult} - MD min	lb/ft	2053	2737	4106	5475	6844	10266	ASTM D6637
Tensile Strength ,T_{ult} - CD min	lb/ft	2053	2053	2053	2053	2053	2053	ASTM D6637
Elongation - MD	%	10	10	10	10	10	10	ASTM D6637
Tensile Strength at 2% Strain- MD min	lb/ft	548	684	1027	1369	1711	2601	ASTM D6637
Tensile Strength at 5% Strain- MD min	lb/ft	1027	1369	2053	2738	3422	5133	ASTM D6637
Long Term Design Strength, T_{al}[2]	lb/ft	1214	1619	2429	3239	4049	6074	
Dimensional Characteristics								
Length	yd	55 / 109	55 / 109	55 / 109	55 / 109	55 / 109	55 / 109	
Width[3]	yd	4.3	4.3	4.3	4.3	4.3	4.3	
Area	m^2	236.5 / 468.7	236.5 / 468.7	236.5 / 468.7	236.5 / 468.7	236.5 / 468.7	236.5 / 468.7	

Notes:

1. Tensile strength of uniaxial ACEGrid®, ranging from 20 kN/m to 900 kN/m, 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 maximun width of above items can reach 5m to meet the client's requirement.

4. The values given are indicative and correspond to MARV obtained in ACE laboratory. The right is reserved to make changes without notice.

5. 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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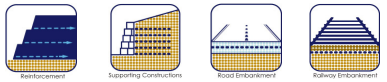

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Product Properties

Physical Properties	Units	GG200-I	GG300-I	GG400-I	GG600-I	GG800-I	Test Method
Material			High Tenacity Polyester Yarn Coated with Durable Polymer				
Aperture Size - MD ± 2mm	in	0.7	1.0	0.9	1.6	0.7	
Aperture Size - CD ± 2mm	in	1.1	1.0	1.0	0.6	0.9	
PET Yarn Properties							
Carboxyl End Group(CEG)	mmol/kg	<30	<30	<30	<30	<30	GRI GG7
Molecular Weight	Mn	>25000	>25000	>25000	>25000	>25000	GRI GG8
Mechanical Index Properties							
Tensile Strength ,T_{ult} - MD min	lb/ft	13687	20531	27375	41062	54749	ASTM D6637
Tensile Strength ,T_{ult} - CD min	lb/ft	2737	2737	3422	6844	6844	ASTM D6637
Elongation - MD	%	10	11	11	12	13	ASTM D6637
Tensile Strength at 2% Strain- MD min	lb/ft	3422	4106	5475	6159	10950	ASTM D6637
Tensile Strength at 5% Strain- MD min	lb/ft	6844	8212	10950	12319	16425	ASTM D6637
Long Term Design Strength, T_{al}[2]	lb/ft	8098	12148	15553	23330	32395	
Dimensional Characteristics							
Length	yd	55 / 109	55	55	55	55	
Width[3]	yd	4.3	4.3	4.3	4.3	4.3	
Area	m^2	236.5 / 468.7	236.5	236.5	236.5	236.5	

Notes:

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