

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%	mm	27	25	22	23	21	20	28	
Aperture Size - CD ± 20%	mm	28	28	24	25	24	24	24	
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	kN/m	20	40	60	80	100	150	200	ASTM D6637
Tensile Strength ,T _{ult} - CD min	kN/m	20	40	60	80	100	150	200	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	kN/m	5	10	15	20	20	30	40	ASTM D6637
Tensile Strength at 2% Strain- CD min	kN/m	5	8	12	15	18	23	28	ASTM D6637
Tensile Strength at 5% Strain- MD min	kN/m	10	20	30	40	40	60	80	ASTM D6637
Tensile Strength at 5% Strain- CD min	kN/m	10	16	24	30	36	46	56	ASTM D6637
Long Term Design Strength, T _{al} ²	kN/m	11	23	35	47	59	88	118	
Dimensional Characteristics									
Length	m	50 / 100	50 / 100	50 / 100	50 / 100	50 / 100	50	50	
Width	m	3.9	3.9	3.9	3.9	3.9	3.9	3.9	
Area	m ²	195 / 390	195 / 390	195 / 390	195 / 390	195 / 390	195	195	

Notes:

1. Tensile strength of biaxial ACEGrid®, ranging from 20 kN/m to 400 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 values given are indicative and correspond to MARV obtained in ACE laboratory. The right is reserved to make changes without notice.
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