

## ACEGrid<sup>®</sup> Specification Uniaxial Geogrid<sup>1</sup>

ACEGrid<sup>®</sup> 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<sup>®</sup> GG-Series with high quality advantages - high tensile modulus and low creep behaviors..., etc. ACEGrid<sup>®</sup> 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	GG200-I	Test Method
Material		High Tenacity Polyester Yarn Coated with Durable Polymer							
Aperture Size - MD $\pm$ 20%	mm	25	25	24	23	21	20	19	
Aperture Size - CD $\pm$ 20%	mm	28	28	28	28	28	28	28	

### PET Yarns 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	30	40	60	80	100	150	200	ASTM D6637
Tensile Strength , $T_{ult}$ - CD min	kN/m	30	30	30	30	30	30	30	ASTM D6637
Elongation - MD	%	10	10	10	10	10	10	10	ASTM D6637
Tensile Strength at 2% Strain- MD min	kN/m	8	10	15	20	25	38	50	ASTM D6637
Tensile Strength at 5% Strain- MD min	kN/m	15	20	30	40	50	75	100	ASTM D6637
Long Term Design Strength, $T_{al}^2$	kN/m	17	23	35	47	59	88	118	

### Dimensional Characteristics

Length	m	50 / 100	50 / 100	50 / 100	50 / 100	50 / 100	50 / 100	50 / 100	
Width <sup>3</sup>	m	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	

### Notes:

- The tensile strength of uniaxial ACEGrid<sup>®</sup> can be customized by client's requirement and range from 30kN/m to 800kN/m.
- LTDS (Long-Term Design Strength) of ACEGrid<sup>®</sup> 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<sub>ID</sub>), creep (RF<sub>CR</sub>), durability(RF<sub>D</sub>).
- The maximum width of ACEGrid<sup>®</sup> can reach 5m to meet the client's requirement.
- 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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