ACETex® ES-Series woven geotextiles, fabricated with self-developed high tenacity polypropylene yarns and well-designed texture, perform exceptionally well in separation, filtration, and reinforcement functions altogether to enhance the safety, reliability and serviceability of paved and unpaved roadways.

With high tensile strength (biaxial tensile strengths up to 200 kN/m) and modulus of the geotextiles, which provide structural stability and distribute load uniformly at low elongation to increase the load-carrying capacity of the system, the ACETex® ES-Series are commonly placed between road base and subgrade. Furthermore, by increasing permeability with appropriate pore sizes, ACETex® ES-Series achieve separation and filtration simultaneously to stabilize the structure of the roadway system in the long term.

Moreover, ACETex® ES-Series are available in various tensile strengths and hydraulic properties to meet diverse project engineering needs.

**APPLICATIONS**

**Roadway / Railway**
- Subgrade Stabilization
- Base Reinforcement

**Embankment**
- Soft Foundation Stabilization

**BENEFITS from the Integrated FUNCTIONS of the Product**

**Reinforcement**
- Increase bearing capacity
- Add membrane support
- Provide lateral restraint

**Separation & Filtration**
- Prevent mixture of base course and subgrade materials
- Retain fine particles
- Mitigate waterbed effect

**Safety**
- Reduce rutting
- Reduce inhomogeneous settlement
- Improve trafficability

**Economical**
- Extend road service life
- Reduce required base course materials
- Lower maintenance costs

**Applicability**
- Use in heavy rainfall/ high water table areas
- Use with some difficult soils
- Allow permeable pavement systems

**APPLICATIONS**

**Roadway / Railway**
- Subgrade Stabilization
- Base Reinforcement

**Embankment**
- Soft Foundation Stabilization
ACE Geosynthetics is dedicated to developing and manufacturing geotextiles, and providing wide technical service in the realm of geotechnical engineering for decades. The experience and expertise accumulated in these activities are the key factors to make ACETex® ES Series successful products, which are well-functional, reliable, and durable with high cost-effectiveness.

### Mechanical Index Properties

<table>
<thead>
<tr>
<th>Test Description</th>
<th>SI Unit</th>
<th>ES420</th>
<th>ES510</th>
<th>ES520</th>
<th>ES710</th>
<th>ES720</th>
<th>ES815</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile strength at 2% strain-MD</td>
<td>kN/m</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>7</td>
<td>10</td>
<td>ASTM D4595</td>
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<tr>
<td>Tensile strength at 2% strain-CD</td>
<td>kN/m</td>
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<td>10</td>
<td>20</td>
<td>20</td>
<td>30</td>
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<tr>
<td>Tensile strength at 5% strain-MD</td>
<td>kN/m</td>
<td>24</td>
<td>25</td>
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<td>35</td>
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<tr>
<td>Tensile strength at 5% strain-CD</td>
<td>kN/m</td>
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### Mechanical Performance Properties

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<th>ES710</th>
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<th>ES815</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>UV Resistance - Retained Strength (500 hr)</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
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### Hydraulic Properties

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<th>Test Description</th>
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<th>ES520</th>
<th>ES710</th>
<th>ES720</th>
<th>ES815</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permittivity (50mm head)</td>
<td>1/sec</td>
<td>1</td>
<td>0.4</td>
<td>1</td>
<td>0.4</td>
<td>1</td>
<td>0.4</td>
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<tr>
<td>Apparent Opening Size (O95)</td>
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<td>0.425</td>
<td>0.425</td>
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</table>

Note.
The values given are indicative and correspond to an average results obtained in our laboratories and testing institutes. The right is reserved to make changes without notice.

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Accurate, Collaborative, Efficient