**Acceptable Fill Materials**

<table>
<thead>
<tr>
<th>Material Location</th>
<th>ASTM Material Classification</th>
<th>AASHTO Material Classification</th>
<th>Compaction / Density Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D</strong> Final Fill: Final fill limits start from the top of the initial backfill layer and end at the bottom of flexible pavement or unpaved finished grade. Note that pavement subbase may be included in the final fill.</td>
<td>N/A²</td>
<td>N/A²</td>
<td>Prepare per site design engineer's plans. Paved installations may have specific material and preparation requirements.</td>
</tr>
<tr>
<td><strong>C</strong> Fittings Embedment: Full surrounding the system fittings from the invert (bottom) up to no less than 6&quot; above the crown (top) of the fittings.</td>
<td>Class I or II</td>
<td>AASHTO M145 A1, A3 or AASHTO M43 A5, A6, A56, A57, A67</td>
<td>Compact in maximum 8&quot; (203 mm) loose lifts to a minimum of 95% of maximum standard proctor density</td>
</tr>
<tr>
<td><strong>B</strong> Pipe Embedment: Full surrounding the system pipe from the invert (bottom) up to no less than 8&quot; above the crown (top) of the pipe.</td>
<td>Class I or II</td>
<td>AASHTO M145 A1, A3 or AASHTO M43 A5, A6, A56, A57, A67</td>
<td>Compact per the latest edition of ASTM D2321 specifications</td>
</tr>
<tr>
<td><strong>A</strong> Bedding: Fill below the pipe from the subgrade up to the invert (bottom) of the pipe.</td>
<td>Class I or II</td>
<td>AASHTO M145 A1, A3 or AASHTO M43 A5, A6, A56, A57, A67</td>
<td>Compact to 90% standard proctor density</td>
</tr>
</tbody>
</table>

**Notes:**
- All references to Class I or II materials are per ASTM D2321 Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity Flow Applications, latest edition.
- All references to AASHTO material specifications are per AASHTO M43 and M45 Gradations, latest edition.
- All references to ASTM material specifications are per ASTM D2321, latest edition.
- Initial backfill: Suitable material shall be Class I or II. The contractor shall provide documentation for material specification to engineer.
- Bedding: Suitable material shall be Class I or II. The contractor shall provide documentation for material specification to engineer.
- Initial backfill: Suitable material shall be Class I or II in the pipe zone extending not less than 6" (152 mm) above crown of pipe. The contractor shall provide documentation for material specification to engineer. Material shall be installed as required in ASTM D2321, latest edition. If different fill is used in zones B and C, filter fabric may be used as specified by the engineer per note 1.
- Filter fabric: A geotextile fabric may be used as specified by the engineer to prevent the migration of fines from the native soil into the select backfill material.
- Bedding: Suitable material shall be Class I or II. The contractor shall provide documentation for material specification to engineer.
- Base course: Suitable material shall be Class I or II in the base course. The contractor shall provide documentation for material specification to engineer.
- Bedding: Suitable material shall be Class I or II below the base course. The contractor shall provide documentation for material specification to engineer. Materials shall be installed as required in ASTM D2321, latest edition. If different fill is used in zones B and C, filter fabric may be used as specified by the engineer per note 1.
- Cover: Additional cover may be required to prevent floatation. For traffic applications, minimum cover is measured from top of pipe to bottom of flexible pavement or to top of rigid pavement. Maximum fill height is limited to 8 ft (2.4 m) over fittings for typical system installations. Please note these limits apply to all fittings within systems limits, and not just manifold fittings. Contact an ADS representative when maximum fill heights exceed 8 ft (2.4 m) for installation considerations.

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**Notes:**
1. All references to Class I or II materials are per ASTM D2321 Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity Flow Applications, latest edition.
2. All references to AASHTO material specifications are per AASHTO M43 and M45 Gradations, latest edition.
3. All references to ASTM material specifications are per ASTM D2321, latest edition.
4. Measures should be taken to prevent the migration of native fines into the backfill material when required. See ASTM D2321.
5. Filter fabric: A geotextile fabric may be used as specified by the engineer to prevent the migration of fines from the native soil into the select backfill material.
6. Bedding: Suitable material shall be Class I or II. The contractor shall provide documentation for material specification to engineer.
7. Initial backfill: Suitable material shall be Class I or II in the pipe zone extending not less than 6" (152 mm) above crown of pipe. The contractor shall provide documentation for material specification to engineer. Material shall be installed as required in ASTM D2321, latest edition. If different fill is used in zones B and C, filter fabric may be used as specified by the engineer per note 1.
8. Cover: Additional cover may be required to prevent floatation. For traffic applications, minimum cover is measured from top of pipe to bottom of flexible pavement or to top of rigid pavement. Maximum fill height is limited to 8 ft (2.4 m) over fittings for typical system installations. Please note these limits apply to all fittings within systems limits, and not just manifold fittings. Contact an ADS representative when maximum fill heights exceed 8 ft (2.4 m) for installation considerations.