HI-Q® PIPE (PER AASHTO)

THE PERFORMANCE YOU EXPECT. THE INNOVATIONS YOU NEED.

With over 110 years experience, Hancor has provided expert knowledge and innovative product solutions proven in a wide range of field drainage applications. The development of large diameter pipe is only one example of our commitment to providing superior products and improved performance. Our HDPE pipe delivers superior value while providing physical strength and structural design that just cannot be matched by metal or concrete.

HI-Q PIPE IS PERFECT FOR THE FOLLOWING APPLICATIONS:

- Culverts
- Cross, Slope or Edge Drains
- Pond Overflows
- Parking Lot Drainage
- Retention/Detention Systems
- Storm Sewers
- Sports Playing Fields
- Golf Courses

FEATURES & BENEFITS

- Meets soil-tight joint performance requirements. Coupling bands are available.
- Available in nominal 20’ (6.1 m) lengths, resulting in fewer joints – pipe can easily be cut to the desired lengths in the field.
- Easy-to-handle, safe, lightweight pipe requires less labor and equipment for faster installation and reduced costs.
- HS-25 (Highway traffic loads) rated with a minimum of 1’ (0.3 m) of cover for 4” - 48” (100 - 1200 mm) and 2’ (0.6 m) for 54” - 60” (1350 - 1500 mm) diameters.
- Provides superior resistance to chemicals, road salts, motor oil and gasoline – will not rust, deteriorate or crumble.
- Withstands repeated freeze/thaw cycles and continuous subzero temperatures.
- Superior hydraulics-smooth interior will ensure no debris or sediment build-up.

Hancor Service: Hancor representatives and engineers are committed to providing you with the answers to all your questions, including specifications, installation, backfill recommendations and more.
HI-Q PIPE (PER AASHTO) SPECIFICATIONS

SCOPE
This specification describes 4- through 60-inch (100 to 1500 mm) Hancor Hi-Q pipe (per AASHTO) for use in gravity-flow drainage applications.

PIPE REQUIREMENTS
Hi-Q pipe (per AASHTO) shall have a smooth interior and annular exterior corrugations.

- 4- through 10-inch (100 to 250 mm) shall meet AASHTO M252, Type S.
- 12- through 60-inch (300 to 1500 mm) shall meet AASHTO M294, Type S or ASTM F2306.
- Manning’s “n” value for use in design shall be 0.012.

JOINT PERFORMANCE
Pipe shall be joined with coupling bands covering at least two full corrugations on each end of the pipe. Standard connections shall meet or exceed the soil-tight requirements of AASHTO M252, AASHTO M294, or ASTM F2306.

Gasketed connections shall incorporate a closed-cell synthetic expanded rubber gasket meeting the requirements of ASTM D1056 Grade 2A2. Gaskets, when applicable, shall be installed by the pipe manufacturer.

FITTINGS
Fittings shall conform to AASHTO M252, AASHTO M294, or ASTM F2306.

MATERIAL PROPERTIES
Virgin material for pipe and fitting production shall be high-density polyethylene conforming with the minimum requirements of cell classification 424420C for 4- through 10-inch (100 to 250 mm) diameters, or 435400C for 12- through 60-inch (300 to 1500 mm) diameters, as defined and described in the latest version of ASTM D3350, except that carbon black content should not exceed 4%. The 12- through 60-inch (300 to 1500 mm) virgin pipe material shall comply with the notched constant ligament-stress (NCLS) test as specified in Section 9.5 and 5.1 of AASHTO M294 and ASTM F2306 respectively.

INSTALLATION
Installation shall be in accordance with ASTM D2321 and Hancor’s published installation guidelines, with the exception that minimum cover in trafficked areas for 4- through 48-inch (100 to 1200 mm) diameters shall be one foot (0.3 m) and for 54- and 60-inch (1350 - 1500 mm) diameters, shall be 2 ft. (0.6 m) in single run applications. Backfill for minimum cover situations shall consist of Class 1, Class 2 (minimum 90% SPD) or Class 3 (minimum 90%) material. Maximum fill heights depend on embedment material and compaction level; please refer to Technical Note 2.02. Contact your local Hancor representative or visit our website at www.hancor.com for a copy of the latest installation guidelines.

PIPE DIMENSIONS

<table>
<thead>
<tr>
<th>Pipe I.D., in. (mm)</th>
<th>4 (100)</th>
<th>6 (150)</th>
<th>8 (200)</th>
<th>10 (250)</th>
<th>12 (300)</th>
<th>15 (375)</th>
<th>18 (450)</th>
<th>24 (600)</th>
<th>30 (750)</th>
<th>36 (900)</th>
<th>42 (1050)</th>
<th>48 (1200)</th>
<th>54 (1350)</th>
<th>60 (1500)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe O.D.*, in. (mm)</td>
<td>4.8 (122)</td>
<td>6.9 (175)</td>
<td>9.1 (231)</td>
<td>11.4 (290)</td>
<td>14.5 (368)</td>
<td>18 (457)</td>
<td>22 (559)</td>
<td>28 (711)</td>
<td>36 (914)</td>
<td>42 (1067)</td>
<td>48 (1219)</td>
<td>54 (1372)</td>
<td>61 (1544)</td>
<td>67 (1702)</td>
</tr>
</tbody>
</table>

*Pipe O.D. values are provided for reference purposes only, values stated for 12- through 60-inch are ± 1 inch. Contact a sales representative for exact values.