N-12® ST IB PIPE (PER AASHTO)

N-12 pipe offers significant performance advantages, plus the best soil-tight joint in the industry. Available in diameters from 4”-60" (100-1500 mm), N-12 pipe is replacing reinforced concrete pipe as a preferred product for storm water applications.

ADS N-12 pipe contains a superior built-in bell-and-spigot joint. The joints are sealed by high-quality, factory-installed gaskets that meet all the requirements of ASTM F477. A reinforced polyethylene bell minimizes joint distortion. The chipping and cracking that is common to concrete bells is eliminated.

APPLICATIONS:
Storm Sewers  Slope/Edge Drains
Retention/Detention  Mining/Forestry/Industrial
Golf, Turf & Recreation  Foundation Drains
Culverts/Cross Drains  Downspouts/Roof Drainage
Grain Aeration  Land Reclamation
Waterways  Terracing
Ditch Enclosures

FEATURES:
- 4”–60” (100-1500 mm) diameters available
- Nominal 20 ft. (6 m) and 13 ft. (4 m) lengths available
- Bell-and-spigot joint design
- In-line bell design
- Exceptional joint strength
- Excellent abrasion and corrosion resistance
- Light weight
- Fast installation times
- Structural strength that will support H-25 live loads with 1’ (0.3 m) minimum cover; 54” and 60” (1350 and 1500 mm) pipe requires 2’ (0.6 m) cover for H-25 loads

BENEFITS:
- Variety of diameters and lengths fit any project
- Joint only requires lube for fitting - ends are pushed together for easy field installation
- Unlike pipe from other manufacturers, there are no additional gasket materials, grout or sealing bands to transport and apply
- Installation cost savings from lower shipping costs, fewer people, and less heavy equipment required.
- The reinforced polyethylene bell minimizes distortion, chipping and cracking common to concrete pipe bells
- Hydraulic efficiency from smooth interior
- Long-term durability of HDPE

ADS Service: ADS representatives are committed to providing you with the answers to all your questions, including specifications, and installation and more.

THE MOST ADVANCED NAME IN WATER MANAGEMENT SOLUTIONS™
ADS N-12® ST IB PIPE (PER AASHTO) SPECIFICATION

SCOPE
This specification describes 4- through 60-inch (100 to 1500 mm) ADS N-12 ST IB pipe (per AASHTO) for use in gravity flow drainage applications.

PIPE REQUIREMENTS
ADS N-12 ST IB 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 using a bell & spigot joint meeting AASHTO M252, AASHTO M294, or ASTM F2306. The joint shall be soil-tight and gaskets, when applicable, shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. A joint lubricant supplied by the manufacturer shall be used on the gasket and bell during assembly.

FITTINGS
Fittings shall conform to AASHTO M252, AASHTO M294 or ASTM F2306. Bell and spigot connections shall utilize a spun-on or welded bell and valley or saddle gasket meeting the soil-tight joint performance requirements of AASHTO M252, AASHTO M294 or ASTM F2306.

MATERIAL PROPERTIES
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, and 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) pipe material shall comply with the notched constant ligament-stress (NCLS) test as specified in Sections 9.5 and 5.1 of AASHTO M294 and ASTM F2306, respectfully.

INSTALLATION
Installation shall be in accordance with ASTM D2321 and ADS 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, the minimum cover shall be 2 foot (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% SPD) material. Maximum fill heights depend on embedment material and compaction level; please refer to Technical Note 2.01. Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the latest installation guidelines.

PIPE DIMENSIONS

<table>
<thead>
<tr>
<th>Nominal 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>Nominal 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 (1549)</td>
<td>67 (1702)</td>
</tr>
</tbody>
</table>

*Check with sales representative for availability by region.
**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.