

## N-12<sup>®</sup> ST IB PIPE (PER AASHTO)

N-12 corrugated dual-wall pipe was introduced in 1987. Today's N-12 pipe offers significant performance advantages, plus the best soil-tight joint in the industry. Available in diameters from 4" to 60" (100 to 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 rubber gaskets that meet all the requirements of ASTM F477. A polyethylene bell minimizes joint distortion. The chipping and cracking that is common to concrete bells is eliminated.

### APPLICATIONS:

|                         |                            |
|-------------------------|----------------------------|
| Storm Sewers            | Slopes/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 to 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" (1250 and 1500 mm) pipe requires 2' (0.6 m) cover for H-25 loads

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



### BENEFITS:

- Variety of diameters and lengths fit any project
- Joint only requires lube for fitting - ends are pushed together for easy field installation
- Unlike pipes 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
- Hydraulic efficiency from smooth interior
- Long-term durability of HDPE



## 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

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-and-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

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 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](http://www.ads-pipe.com) for a copy of the latest installation guidelines.

### PIPE DIMENSIONS

|                                 |   |              |              |               |               |             |             |             |             |              |              |              |              |              |
|---------------------------------|---|--------------|--------------|---------------|---------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
| Nominal Pipe I.D.* in.<br>(mm)  | 4<br>(100)  | 6<br>(150)   | 8<br>(200)   | 10<br>(250)   | 12<br>(300)   | 15<br>(375) | 18<br>(450) | 24<br>(600) | 30<br>(750) | 36<br>(900)  | 42<br>(1050) | 48<br>(1200) | 54<br>(1350) | 60<br>(1500) |
| Nominal Pipe O.D.** in.<br>(mm) | 4.8<br>(122)  | 6.9<br>(175) | 9.1<br>(231) | 11.4<br>(290) | 14.5<br>(368) | 18<br>(457) | 22<br>(559) | 28<br>(711) | 36<br>(914) | 42<br>(1050) | 48<br>(1200) | 54<br>(1350) | 61<br>(1549) | 67<br>(1702) |
| Perforations                    | All diameters available with or without perforations. |              |              |               |               |             |             |             |             |              |              |              |              |              |

\*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.

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