

# N-12<sup>®</sup> ST IB Pipe (per AASHTO)

N-12 ST IB pipe (per AASHTO) offers significant performance advantages, plus the best soil-tight joint in the industry. The high-density polyethylene material provides abrasion and corrosion resistance.

N-12 ST IB 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 polyethylene bell minimizes joint distortion. The chipping and cracking that is common to concrete bells is eliminated.

## Applications

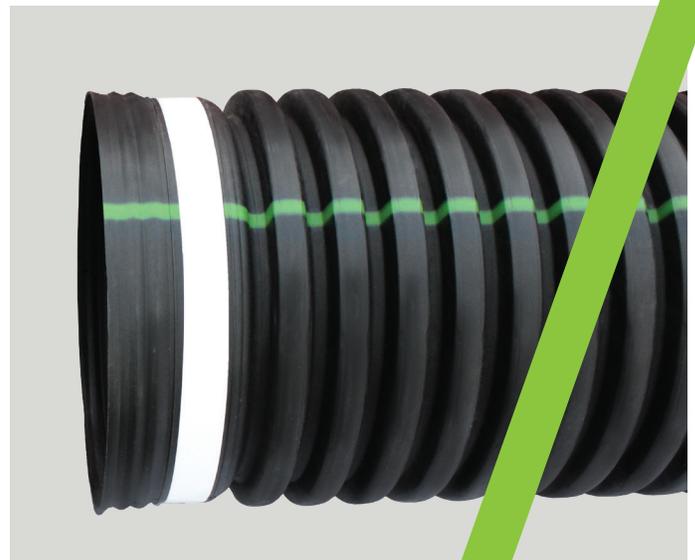
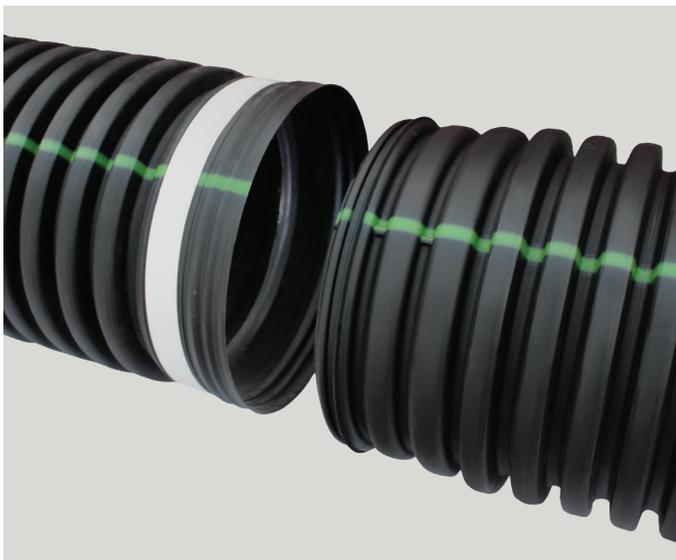
- Storm sewers
- Retention/Detention
- Golf, Turf & Recreation
- Culverts/Cross drains
- Mining/Forestry/Industrial
- Grain aeration
- Waterways
- Ditch enclosures
- Slope/Edge drains
- Foundation drains
- Downspouts/roof drainage
- Land reclamation
- Terracing

## Features

- 4"-60" (100-1500 mm) diameters available
- Nominal 20' (6 m) and 13' (4 m) lengths available
- In-line bell and spigot joint design
- Exceptional joint strength
- Light weight
- Fast installation times
- Structural strength will support H-25 live loads with 12" (300 mm) minimum cover; 60" (1500 mm) requires 24" (600 mm) cover for H-25 live loads

## Benefits

- Variety of diameters and lengths that will fit any project
- Joint only requires lube for fitting - ends are pushed together for easy field installation
- Pipe requires no additional gasket materials, grout or sealing bands to transport and apply
- Installation cost savings from lower shipping costs, reduced labor and less heavy equipment
- Hydraulic efficiency from smooth interior



# 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 land 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 or SP
- 12- through 60-inch (300 to 1500 mm) pipe shall meet AASHTO M294, Type S or SP, 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 for diameters 12- through 60-inch, shall meet the requirements of ASTM F477. For diameters 4- through 10-inch, the joint shall be soil-tight using an engaging dimple connection. Gaskets shall be installed by the pipe manufacturer and covered with a removable, protective wrap to ensure the gasket is free from debris. A joint lubricant available from 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 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 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, respectively.

## 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 60-inch (1500 mm) diameters, the minimum cover shall be two feet (0.6 m) in single run applications. Backfill for minimum cover situations shall consist of Class 1 (compacted), Class 2 (minimum 90% SPD) or Class 3 (minimum 95% 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 [adspipe.com](http://adspipe.com) for a copy of the latest installation guidelines.

## Pipe Dimensions\*

Nominal Diameter													
Pipe I.D. in (mm)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)	36 (900)	42 (1050)	48 (1200)	60 (1500)
Pipe O.D. in (mm)	4.8 (122)	6.9 (175)	9.1 (231)	11.4 (290)	14.5 (368)	18 (457)	22 (559)	28 (711)	36 (914)	42 (1067)	48 (1219)	54 (1372)	67 (1702)

\*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.

