

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

N-12 WT IB pipe (per AASHTO) incorporates patented technology to provide a superior watertight joint. An exterior bell wrap provides a visual indicator to customers and inspectors that a watertight joint is being used.

A patented gasket, which meets all ASTM F477 requirements, increases its sealing forces as intermittent internal or external hydrostatic pressure occurs. The flared bell and spigot improve ease of installation. N-12 is manufactured utilizing high-density polyethylene (HDPE) for excellent abrasion and corrosion resistance.

## Applications

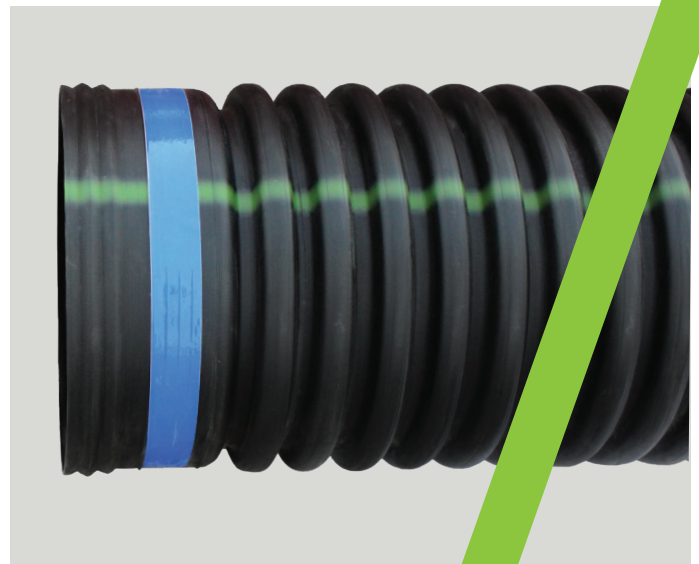
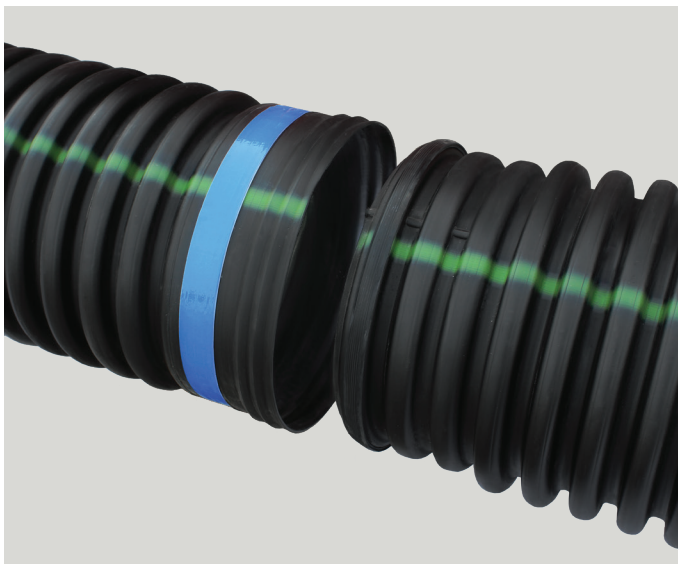
- Storm sewers
- Retention/Detention
- Ditch enclosures
- Culverts & cross drains
- Slope/edge drains
- Mining/Forestry/Industrial

## Features

- 4"-60" (100-1500 mm) diameters available
- Nominal 20' (6 m) and 13' (4 m) lengths available
- Integral bell and factory-installed gasket
- Joint meets or exceeds ASTM D3212 lab test as well as ASTM F2487 and ASTM F1417 watertight field test
- Exceptional joint strength
- Light weight
- Structural strength will support H-25 or HL-93 live loads with 12" (300 mm) minimum cover; 60" (1500 mm) requires 24" (600 mm) cover for H-25 or HL-93 live loads

## Benefits

- Variety of diameters and lengths that will fit any project
- Factory-installed gaskets and built-in bell allow for efficient installation and reduced opportunities for risk
- Installation cost savings from lower shipping costs, reduced labor and less heavy equipment
- Hydraulic efficiency from smooth interior
- Long-term durability of HDPE



# ADS N-12 WT IB Pipe (per AASHTO) Specification

## Scope

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

## Pipe Requirements

ADS N-12 WT IB pipe (per AASHTO) shall have a smooth interior and annular exterior corrugations.

- 4- through 60-inch (100 to 250 mm) shall meet AASHTO M252, Type S
- 12-through 60-inch (300 to 1500 mm) pipe 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 the requirements of AASHTO M252, AASHTO M294, or ASTM F2306. The joint shall be watertight according to the requirements of ASTM D3212. Gaskets shall meet the requirements of ASTM F477. Gaskets shall meet the requirements of ASTM F477. 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. 12- through 60-inch (300 to 1500 mm) diameters shall have an exterior bell wrap installed by the manufacturer.

## 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 watertight joint performance requirements of AASHTO M252, AASHTO M294 or ASTM F2306.

## Field Pipe and Joint Performance

To assure watertightness, field performance verification may be accomplished by testing in accordance with ASTM F2487. Appropriate safety precautions must be used when field testing any pipe material. Contact the manufacturer for recommended leakage rates.

## 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, respectively.

## Installation

Installation shall be in accordance with ASTM D2321 and ADS' recommended 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) diameter, 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%) 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.

