

## N-12® ST IB PIPE (ASTM F2648) SPECIFICATION

### Scope

This specification describes 4- through 30-inch (100 to 750 mm) N-12 ST IB pipe (per ASTM F2648) for use in gravity-flow land drainage applications.

### Pipe Requirements

N-12 ST IB pipe (per ASTM F2648) shall have a smooth interior and annular exterior corrugations.

- 4- through 30-inch (100 to 750 mm) pipe shall meet ASTM F2648.
- Manning’s “n” value for use in design shall be 0.012.

### Joint Performance

Pipe shall be joined using a bell & spigot joint meeting ASTM F2648. The joint shall be soil-tight and gaskets for diameters 12- through 30-inch (300-750 mm), 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 ASTM F2306. Bell and spigot connections shall utilize a welded bell and valley or saddle gasket meeting the soil-tight joint performance requirements of ASTM F2306.

### Material Properties

Material for pipe production shall be an engineered compound of virgin and recycled high density polyethylene conforming with the minimum requirements of cell classification 424420C (ESCR Test Condition B) for 4- through 10-inch (100 to 250 mm) diameters, and 435420C (ESCR Test Condition B) for 12- through 30-inch (300 to 750 mm) diameters, as defined and described in the latest version of ASTM D3350, except that carbon black content should not exceed 4%. The design engineer shall verify compatibility with overall system including structural, hydraulic, material, and installation requirements for a given application.

### 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 30-inch (100 to 750 mm) diameters shall be one foot (0.3 m) in single run applications. Backfill for minimum cover situations shall consist of Class 1 (compacted) or Class 2 (minimum 90% SPD) material. Maximum fill heights depend on embedment material and compaction level; please refer to Technical Note 2.02. Contact your local ADS representative or visit our website at [www.adspipe.com](http://www.adspipe.com) for a copy of the latest installation guidelines.

### Pipe Dimensions

Pipe I.D. in (mm)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)
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)

\*Pipe O.D. values are provided for reference purposes only, values stated for 12 through 30-inch are ±1 inch.

Contact a sales representative for exact values

\*\*All diameters available with or without perforations.