

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) pipe 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 the requirements of 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 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 2 ft. (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 at www.ads-pipe.com for a copy of the latest installation guidelines.

Pipe Dimensions

	Nominal Diameter, in (mm)												
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)

*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

**All diameters available with or without perforations.

N-12 DUAL WALL PIPE (PER ASTM F2648)

12" - 60" DUAL WALL PER ASTM F2648

DIAMETER	LENGTHS	STYLE	N-12 PLAIN END	N-12 ST IB	N-12 WT IB
12" (300 mm)	10' (3 m)	solid		12850010DW	
		solid	12950020DW	12850020DW	12650020DW
	20' (6.1 m)	perf	12910020DW	12810020DW	
		sock	12930020DW	12830020DW	
15" (375 mm)	10' (3 m)	solid		15850010DW	
		solid	15950020DW	15850020DW	15650020DW
	20' (6.1 m)	perf	15910020DW	15810020DW	
		sock	15930020DW	15830020DW	
18" (450 mm)	10' (3 m)	solid		18850010DW	
		solid	18950020DW	18850020DW	18650020DW
	20' (6.1 m)	perf	18910020DW	18810020DW	
		sock	18930020DW	18830020DW	
24" (600 mm)	10' (3 m)	solid		24850010DW	
		solid	24950020DW	24850020DW	24650020DW
	20' (6.1 m)	perf	24910020DW	24810020DW	
		sock	24930020DW	24830020DW	
30" (750 mm)	20' (6.1 m)	solid	30950020DW	30850020DW	30650020DW
		perf	30910020DW	30810020DW	
		sock	30930020DW	30830020DW	
36" (900 mm)	20' (6.1 m)	solid	36950020DW	36850020DW	36650020DW
		perf	36910020DW	36810020DW	
		sock		36830020DW	
42" (1050 mm)	20' (6.1 m)	solid	42950020DW	42850020DW	42650020DW
		perf	42910020DW	42810020DW	
		sock		42830020DW	
48" (1200 mm)	20' (6.1 m)	solid	48950020DW	48850020DW	48650020DW
		perf	48910020DW	48810020DW	
		sock		48830020DW	
60" (1500 mm)	20' (6.1 m)	solid	60950020DW	60850020DW	60650020DW
		perf	60910020DW	60810020DW	
		sock		60830020DW	