

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)

4" - 10" DUAL WALL

DIAMETER	LENGTHS	STYLE	N-12 PLAIN END	N-12 ST*	N-12 WT*
4" (100 mm)	10' (3 m)	solid	04150010DW	04150010IBDW	04650010IBDW
		perf	04110010DW	04110010IBDW	
	20' (6.1 m)	solid	04150020DW	04150020IBDW	04650020IBDW
		perf	04110020DW	04110020IBDW	
		sock	04230020DW	04230020IBDW	
6" (150 mm)	10' (3 m)	solid	06150010DW	06150010IBDW	06650010IBDW
		perf	06110010DW	06110010IBDW	
	20' (6.1 m)	solid	06150020DW	06150020IBDW	06650020IBDW
		perf	06110020DW	06110020IBDW	
		sock	06230020DW	06230020IBDW	
8" (200 mm)	10' (3 m)	solid	08150010DW	08150010IBDW	08650010IBDW
		perf	08110010DW	08110010IBDW	
	20' (6.1 m)	solid	08150020DW	08150020IBDW	08650020IBDW
		perf	08110020DW	08110020IBDW	
		sock	08230020DW	08230020IBDW	
10" (250 mm)	10' (3 m)	solid	10150010DW	10150010IBDW	10650010IBDW
		perf	10110010DW	10110010IBDW	
	20' (6.1 m)	solid	10150020DW	10150020IBDW	10650020IBDW
		perf	10110020DW	10110020IBDW	
		sock	10230020DW	10230020IBDW	

*LIMITED GEOGRAPHIC AVAILABILITY



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