

## N-12® ST IB PIPE (PER AASHTO)

N-12 corrugated dual-wall pipe was introduced in 1987. Today's N-12 pipe offers significant performance advantages, plus the best soil-tight joint in the industry. Available in diameters from 4" to 60" (100 to 1500 mm), N-12 pipe is replacing reinforced concrete pipe as a preferred product for storm water applications.

ADS N-12 pipe contains a superior built-in bell-and-spigot joint. The joints are sealed by high-quality, factory-installed rubber gaskets that meet all the requirements of ASTM F477. A reinforced polyethylene bell minimizes joint distortion. The chipping and cracking that is common to concrete bells, is eliminated.

### APPLICATIONS:

Storm Sewers	Slope/Edge Drains
Retention/Detention	Mining/Forestry/Industrial
Golf, Turf & Recreation	Foundation Drains
Culverts/Cross Drains	Downspouts/Roof Drainage
Grain Aeration	Land Reclamation
Waterways	Terracing
Ditch Enclosures	

### FEATURES:

- 4"– 60" (100 to 1500 mm) diameters available
- 6 m (19 ft, 8 in) or 4 m (13 ft) lengths available
- Bell-and-spigot joint design
- In-line bell design
- Exceptional joint strength
- Excellent abrasion and corrosion resistance
- Light weight
- Fast installation times
- Structural strength that will support H-25 live loads with 1' (0.3 m) minimum cover 54" and 60" (1350 and 1500 mm) pipe requires 2' (0.6 m) cover for H-25 loads)

**ADS Service:** ADS representatives are committed to providing you with the answers to all your questions, including specifications, and installation and more.



### BENEFITS:

- Variety of diameters and lengths that will fit in any project
- Joint only requires lube for fitting – ends are pushed together for easy field installation
- Unlike pipe from other manufacturers, there are no additional gasket materials, grout or sealing bands to transport and apply
- Installation cost savings from lower shipping costs, fewer people, and less heavy equipment required
- The reinforced polyethylene bell minimizes distortion. Chipping and cracking common to concrete pipe bells, is eliminated
- Hydraulic efficiency from smooth interior
- Long-term durability of HDPE



## 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 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.
- 12- through 60-inch (300 to 1500 mm) shall meet AASHTO M294, Type S or ASTM F2306.
- Manning's "n" value for use in design shall be 0.012.

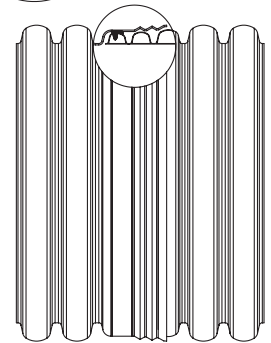
### JOINT PERFORMANCE

Pipe shall be joined using a bell & spigot joint meeting AASHTO M252, AASHTO M294, or ASTM F2306. The joint shall be soil-tight and gaskets, when applicable, shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. A joint lubricant supplied by 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 spun-on or welded bell and valley or saddle gasket meeting the soil-tight joint performance requirements of AASHTO M252, AASHTO M294 or ASTM F2306.



### MATERIAL PROPERTIES

Virgin 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, or 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) virgin pipe material shall comply with the notched constant ligament-stress (NCLS) test as specified in Section 9.5 and 5.1 of AASHTO M294 and ASTM F2306 respectfully.

### INSTALLATION

Installation shall be in accordance with ASTM D2321 and ADS's 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 54- and 60-inch (1350 and 1500 mm) diameters, shall be 2 ft (0.6 m) in single run applications. Backfill for minimum cover situations shall consist of Class 1, Class 2 (minimum 90% SPD) or Class 3 (minimum 90% 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](http://www.ads-pipe.com) for a copy of the latest installation guidelines.

### PIPE DIMENSIONS

Pipe I.D., in. (mm)	Nominal Diameter, 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)	54 (1350)	60 (1500)
Pipe O.D.** in. (mm)	4.8 (122)	6.9 (175)	9.1 (231)	11.4 (290)	14.5 (368)	18 (457)	21 (559)	28 (711)	36 (914)	42 (1067)	48 (1219)	54 (1372)	61 (1549)	67 (1702)
Perforations	All diameters available with or without perforations.													

\* 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.

For more information on ADS N-12 ST IB (per AASHTO) pipe and other ADS products, please contact our Customer Service Representatives at 1-800-821-6710.

ADS "Terms and Conditions of Sale" are available on the ADS website, [www.ads-pipe.com](http://www.ads-pipe.com).  
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