

N-12® WT IB PIPE (PER AASHTO)

It's a revolution that began nearly 15 years ago when ADS pioneered the watertight joint for corrugated polyethylene pipe. The ADS N-12 WT IB pipe (per AASHTO) – our third generation of watertight joint technology – has set the standard in watertight performance.

The ADS N-12 WT IB pipe (per AASHTO) incorporates patented technology developed in the aerospace industry. A 2" wide proprietary polymer composite is fused to the outside wall of the integral bell, improving the joint's integrity and tolerance control. A patented gasket, that meets all requirements of ASTM F477, increases its sealing forces as internal or external hydrostatic pressure increases. Flared bell and spigot significantly improve ease of installation. N-12 WT IB pipe (per AASHTO) is so advanced in its design that it is easy to put your confidence in for long-term reliability.

APPLICATIONS:

Storm Sewers	Culverts & Cross Drains
Sanitary Sewers	Slope/Edge Drains
Retention/Detention	Mining/Forestry/Industrial
Roof Drainage	Ditch Enclosures

FEATURES:

- 4" – 60" (100 - 1500 mm) diameters available
- 6 m (19 ft, 8 in) or 4 m (13 ft) 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
- Excellent abrasion and corrosion resistance
- Light weight
- 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)

BENEFITS:

- Variety of diameters and lengths fit any project
- Pipe requires no extra couplers, grout or other sealants for installation due to built-in bell and factory-installed gasket. This means fewer components to risk performance.
- 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 Service: ADS representatives are committed to providing you with the answers to all your questions, including specifications, and installation and more.



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 drainage applications.

PIPE REQUIREMENTS

N-12 WT 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 with the N-12 WT IB pipe (per AASHTO) joint meeting the requirements of AASHTO M252, AASHTO M294 or ASTM F2306.

4- through 60-inch (100 to 1500 mm) shall be watertight according to the requirements of ASTM D3212. Gaskets shall be made from polyisoprene meeting 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 (300-1500 mm) diameters shall have a reinforced bell with a bell tolerance device. The bell tolerance device shall be installed by the manufacturer.

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 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

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, 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) 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 respectively.

INSTALLATION

Installation shall be in accordance with ASTM D2321 and ADS's published installation guidelines, with the exception that minimum cover in traffic 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 - 1500 mm) diameters, the minimum cover shall be 2 foot (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 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)	22 (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 WT IB pipe (per AASHTO) and other ADS products, please contact our Customer Service Representatives at 1-800-821-6710

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