

N-12[®] WT IB PIPE (PER CSA B182.8)

It's a revolution that began over 15 years ago when ADS pioneered the watertight joint for corrugated polyethylene pipe. The ADS Canada N-12 WT IB (per CSA B182.8) pipe has set the standard in watertight performance.

N-12[®] WT IB pipe is a gravity flow, watertight pipe which is available in a complete range of sizes from 100 - 1500mm (4" - 60") diameters. The pipe is third party verified to meet 74 kPa (10.8 psi) laboratory pressure and vacuum testing requirements.

N-12 WT IB pipe (per CSA B182.8) incorporates patented technology to provide a superior watertight joint. An exterior bell wrap provides a quick visual indicator to customers and inspectors that a watertight product is being used. A patented gasket increases its sealing forces as intermittent internal or external hydrostatic pressure occurs. The flared bell and spigot significantly improve ease of installation. These advanced joint design features reduce infiltration and exfiltration, resulting in outstanding long-term performance.

APPLICATIONS:

- Storm Sewers
- Retention/Detention
- Culverts/Cross Drains
- Slope/Edge Drains
- Mining/Forestry/Industrial
- Ditch Enclosures

FEATURES:

- Available in 100 mm - 1500 mm (4" - 60") diameters
- Certified to meet the 74 kPa (10.8 psi) watertight joint performance requirements in accordance with the Canadian Standards Association (CSA) B182.8 standard
- Pipe manufactured in 6 m (20') standard lay lengths, resulting in fewer joints. Custom 4 m (13') lay lengths are available upon request
- Structurally designed to withstand HS-25, HL-93 and CL-625 highway traffic loads with a minimum cover as follows:
 - 100 - 1200 mm (4"-48") diameters minimum cover 0.3 m (1')
 - 1500 mm (60") diameter minimum cover 0.6 m (2')

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



BENEFITS:

- Fast bell-and-spigot joint assembly with unsurpassed structural integrity
- Superior hydraulics - smooth interior will ensure no debris or sediment build-up
- Prevents contamination of soil and local waters from construction runoff sediment, lawn care products or automobile emissions
- Avoids possible infiltration of sands and fines resulting in sinkholes and differential settlement to adjacent structures



ADS CANADA N-12® WT IB PIPE (PER CSA B182.8) SPECIFICATION

SCOPE

This specification describes 100 to 1500 mm (4- through 60-inch) ADS Canada N-12 WT IB (per CSA B182.8) pipe for use in gravity-flow drainage applications.

PIPE REQUIREMENTS

ADS Canada N-12 WT IB pipe shall have a smooth interior and annular exterior corrugations.

- 100 to 1500 mm (4- through 60-inch) shall be certified by an accredited certification body to meet CSA B182.8
- 100 to 900 mm (4- through 36-inch) shall meet a minimum pipe stiffness of 320 kPa (46.4 psi) when tested in accordance with ASTM D 2412
- 1050 to 1500 mm (42- through 60-inch) shall meet a pipe stiffness requirement that is variable based on the diameter when tested in accordance with ASTM D 2412. Minimum requirements are provided within CSA B182.8
- Manning's "n" value for use in design shall be 0.012

JOINT PERFORMANCE

Pipe shall be joined with a bell & spigot joint meeting the Watertight Type 1 requirements of CSA B182.8.

100 to 1500 mm (4- through 60-inch) shall be watertight according to the requirements of ASTM D3212. Gaskets shall be made of 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.

300 to 1500 mm (12- through 60-inch) diameters shall have an exterior bell wrap installed by the manufacturer.

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 production shall be high density polyethylene conforming with the minimum requirements of cell classification 435400C for 100 to 1500mm (4- through 60-inch) diameters, as defined and described in the latest version of ASTM D3350, except that carbon black content should not exceed 4%. The virgin pipe material shall comply with the notched constant ligament stress (NCLS) test as described in clause 8.5 of CSA standard B182.8. The average failure time of the 5 test specimens shall exceed 24 hours with no single test specimen's failure time less than 17 hours.

INSTALLATION

Installation shall be in accordance with CSA B182.11 and ADS published installation guidelines with the exception that minimum cover in trafficked areas for 100 to 1200 mm (4- through 48-inch) diameters shall be 0.3 m (1 ft.) and for 1350 and 1500 mm (54- and 60-inch) diameters shall be 0.6 m (2 ft) in single run applications. Backfill for minimum cover situations shall consist of Class 1, Class 2 (minimum 90% SPD), or Class 3 (minimum 95% SPD) material. Maximum fill heights depend upon embedment material and compaction level; please refer to Technical Note 2.01C. Contact your local ADS representative or visit our website at www.ads-pipecanada.com for a copy of the latest installation guidelines.

PIPE DIMENSIONS

| | | | | | | | | | | | | | | | |
|----------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|-----------|-------------|-----------|
| Pipe I.D., mm (in.) | 100 (4) | 150 (6) | 200 (8) | 250 (10) | 300 (12) | 375 (15) | 450 (18) | 525 (21) | 600 (24) | 750 (30) | 900 (36) | 1050 (42) | 1200 (48) | 1350** (54) | 1500 (60) |
| Pipe O.D.,* mm (in.) | 122 (4.8) | 175 (6.9) | 231 (9.1) | 290 (11.4) | 368 (14.5) | 457 (18) | 559 (22) | 622 (24.5) | 711 (28) | 914 (36) | 1067 (42) | 1219 (48) | 1372 (54) | 1549 (61) | 1702 (67) |
| Minimum Pipe Stiffness kPa (psi) | 320 (46.4) | 320 (46.4) | 320 (46.4) | 320 (46.4) | 320 (46.4) | 320 (46.4) | 320 (46.4) | 320 (46.4) | 320 (46.4) | 320 (46.4) | 320 (46.4) | 140 (20) | 125 (18) | 110 (16) | 95 (14) |

*Pipe O.D. values are provided for reference purposes only, values stated for 300-1500 mm are ± 25 mm. Contact a sales representative for exact values.

**Check with sales representative for availability by region and ordering.

