N-12® ASTM F2648 ST (SOILTIGHT) IB PIPE

N-12 corrugated dual-wall pipe was introduced in 1987. Today's N-12 ASTM F2648 ST IB pipe offers significant performance advantages, plus the best soil-tight joint in the industry. Available in diameters from 4" to 60" (100 to 1500mm), N-12 ASTM F2648 pipe is replacing reinforced concrete pipe as a preferred product for storm water applications.

ADS N-12 ASTM F2648 ST IB 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
- 6m (19 ft, 8 in) or 4m (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 12" (300mm) minimum cover (60" pipe requires 2' cover for H-25 loads)

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 pipes 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 Service: ADS representatives are committed to providing you with the answers to all your questions, including specifications, and installation and more.
**ADS N-12® ASTM F2648 ST IB PIPE SPECIFICATION**

**SCOPE**
This specification describes 4- through 60-inch (100 to 1500 mm) ADS N-12 ASTM F2648 ST IB pipe for use in gravity-flow land drainage applications.

**PIPE REQUIREMENTS**
ADS N-12 ST ASTM F2648 ST IB pipe shall have a smooth interior and annular exterior corrugations.
- 4- through 60-inch (100 to 1500mm) shall meet ASTM F2648.
- Manning's "n" value for use in design shall be 0.012.

**JOINT PERFORMANCE**
Pipe shall be joined using a bell & spigot joint meeting ASTM F2648. 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 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 ASTM F2306.

**MATERIAL PROPERTIES**
Material for pipe production shall be high density polyethylene conforming with the minimum requirements of cell classification 424420C, (ESCR Test Condition B) for 4- through 10-inch (100 to 250mm) diameters, and 435420C, (ESCR Test Condition B) for 12- through 60-inch (300 to 1500mm) diameters, as defined and described in the latest version of ASTM D3350, except that carbon black content should not exceed 4%. The design engineer shall verify compatibility with overall system including structural, hydraulic, material and installation requirements for a given application.

**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 12- through 48-inch (300 to 1200 mm) diameters shall be one foot (0.3 m), and for 60-inch (1500 mm) diameters, the minimum cover shall be 2 ft (0.6 m) in single run applications. Maximum fill height as measured from the top of the pipe to the top of the pavement shall be 8-feet. Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the latest installation guidelines.

**PIPE DIMENSIONS**

<table>
<thead>
<tr>
<th>Pipe I.D., in. <strong>(mm)</strong></th>
<th>Nominal Diameter, in (mm)</th>
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<tbody>
<tr>
<td>4 (100)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>8 (200)</td>
<td>10 (250)</td>
</tr>
<tr>
<td>12 (300)</td>
<td>15 (375)</td>
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<tr>
<td>18 (450)</td>
<td>24 (600)</td>
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<tr>
<td>30 (750)</td>
<td>36 (900)</td>
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<tr>
<td>42 (1050)</td>
<td>48 (1200)</td>
</tr>
<tr>
<td>60 (1500)</td>
<td></td>
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</tbody>
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**Pipe O.D.** **,** in. (mm): 4.8 (122), 6.9 (175), 9.1 (231), 11.4 (290), 14.5 (368), 18 (457), 21 (533), 28 (711), 36 (914), 42 (1067), 48 (1219), 54 (1372), 57 (1702)

* 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 ASTM F2648 ST IB pipe and other ADS products, please contact our Customer Service Representatives at 1-800-821-6710.