N-12® ST IB Pipe (per ASTM F2648)

N-12 ST IB pipe (per ASTM F2648) has recycled content and provides material properties to meet or exceed the demands of the market.

N-12 ST IB 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 polyethylene bell minimizes joint distortion. The chipping and cracking that is common to concrete bells is eliminated.

**Applications**
- Storm drains
- Retention/Detention
- Golf, Turf & Recreation
- Culverts/Cross drains
- Mining/Forestry/Industrial
- Grain aeration
- Waterways
- Ditch enclosures
- Slope/Edge drains
- Foundation drains
- Downspouts/roof drainage
- Land reclamation
- Terracing

**Features**
- 4”-60” (100-1500 mm) diameters available
- Nominal 20’ (6 m) and 13’ (4 m) lengths available
- In-line bell and spigot joint design
- Exceptional joint strength
- Light weight
- Fast installation times
- Structural strength will support H-25 live loads with 12” (300 mm) minimum cover; 60” (1500 mm) requires 24” (600 mm) cover for H-25 live loads

**Benefits**
- Variety of diameters and lengths that will fit any project
- Joint only requires lube for fitting - ends are pushed together for easy field installation
- Pipe requires no additional gasket materials, grout or sealing bands to transport and apply
- Installation cost savings from lower shipping costs, reduced labor and less heavy equipment
- Hydraulic efficiency from smooth interior

![Image of N-12 ST IB Pipe](image-url)
ADS N-12 ST IB Pipe (per ASTM F2648) Specification

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

Pipe Requirements
ADS N-12 ST IB pipe (per ASTM F2648) shall have a smooth interior and annular exterior corrugations.
- 4- through 60-inch (100 to 1500 mm) 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 an engineered compound of virgin and recycled high-density polyethylene conforming with the minimum requirements of cell classification 424420C (ESCR Test Condition B) for 4- through 10-inch (100 to 250 mm) diameters, and 435420C (ESCR Test Condition B) 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 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’ 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 60-inch (1500 mm) diameter the minimum cover shall be two feet (0.6 m) in single run applications. Backfill for minimum cover situations shall consist of Class 1 (compacted) or Class 2 (minimum 90% SPD) material. Maximum fill heights depend on embedment material and compaction level; please refer to Technical Note 2.02. Contact your local ADS representative or visit our website adspipe.com for a copy of the latest installation guidelines.

Pipe Dimensions*

<table>
<thead>
<tr>
<th>Nominal Diameter</th>
<th>Pipe I.D. (in)</th>
<th>4 (100)</th>
<th>6 (150)</th>
<th>8 (200)</th>
<th>10 (250)</th>
<th>12 (300)</th>
<th>15 (375)</th>
<th>18 (450)</th>
<th>24 (600)</th>
<th>30 (750)</th>
<th>36 (900)</th>
<th>42 (1050)</th>
<th>48 (1200)</th>
<th>60 (1500)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe O.D. (in)</td>
<td>4.8 (122)</td>
<td>6.9 (175)</td>
<td>9.1 (231)</td>
<td>11.4 (290)</td>
<td>14.5 (368)</td>
<td>18 (457)</td>
<td>22 (559)</td>
<td>28 (711)</td>
<td>36 (914)</td>
<td>42 (1067)</td>
<td>48 (1219)</td>
<td>54 (1372)</td>
<td>67 (1702)</td>
<td></td>
</tr>
</tbody>
</table>

*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.