

## Hancor

### SCOPE

This specification describes 4" - 30" (100 - 750mm) EcoFirst pipe for use in gravity flow drainage applications.

### PIPE REQUIREMENTS

EcoFirst pipe shall have a smooth interior and annular exterior corrugations.

- 4" - 10" (100 - 250mm) shall meet structural requirements of AASHTO M252, Type S.
- 12" - 30" (300 - 750mm) shall meet structural requirements of AASHTO M294, Type S.
- Manning's "n" value for use in design shall not be less than 0.012.

### JOINT PERFORMANCE

Pipe shall meet the joint performance requirements of AASHTO M252 or M294.

- 10" - 30" (250 - 750mm) Bell-and-Spigot gasketed joints shall be silt-tight and non-rated watertight. Gaskets shall be made of polyisoprene meeting the requirements of ASTM F477 with the addition that the gaskets shall not have any visible cracking when tested according to ASTM D1149 after 72-hour exposure in 50 PPHM ozone at 104° Fahrenheit (40°C). 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 available from the manufacturer shall be used on the gasket and bell during assembly.
- 4" - 30" (100 - 750mm) Plain End pipe shall be joined with external couplers, or coupling bands covering at least two full corrugations on each end of the pipe. Standard (non-gasketed) connections shall meet the soil-tightness requirements of the AASHTO Standard Specification for Highway Bridges, Section 26, paragraph 26.4.2.4(e).

### MATERIAL PROPERTIES

- Pipe and fitting material used to produce diameters 4" - 8" (100 - 200mm) diameters shall be high density polyethylene meeting ASTM D3350 minimum cell classification 324420E. The material formulation shall be not less than 50% recycled\* polyethylene.
- Pipe and fitting material used to produce diameters 12" - 30" (300 - 750mm) diameters shall be high density polyethylene meeting ASTM D3350 minimum cell classification 335420E. The material formulation shall be not less than 50% recycled polyethylene.
- The recycled resin shall be tested for slow crack growth resistance using the single point notched constant tensile load (SP-NCTL) test according to the procedure described in AASHTO M294, Section 9.5. Average failure time of the five test specimens shall not be less than 18 hours for pigmented resins or 24 hours for equivalent non-pigmented resins.

\* Does not contain curbside post consumer

### MARKING

12" - 30" (300 - 750mm) Bell-and-Spigot pipe shall be clearly marked with a green identification band on the spigot end of the pipe, while 12" - 30" (300 - 750mm) Plain End pipe shall be marked with a green identification band located between the first and second corrugations of one end of the product.

### INSTALLATION

Installation shall be in accordance with ASTM D2321 with the exception that minimum cover in trafficked areas shall be one foot (0.3 m).

### PIPE DIMENSIONS

Pipe I.D., in. (mm)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)
Pipe O.D., in. (mm)	4.7 (119)	6.9 (175)	9.4 (239)	11.9 (303)	14.2 (361)	17.7 (450)	21.5 (546)	28.4 (721)	36.0 (914)
Pitch, in. (mm)	0.64 (16.2)	0.73 (18.5)	1.02 (25.9)	1.67 (43)	2.0 (51)	2.4 (61)	3.0 (76)	4.0 (102)	4.0 (102)
Approx. Weight lbs/ft (N/m)	0.44 (6.4)	1.03 (15.1)	1.6 (23.3)	2.1 (30.7)	3.3 (48.2)	4.7 (68.6)	6.2 (90.5)	10.7 (156.1)	15.6 (227.7)

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### Direct Contact

#### Customer Service

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#### Application Engineering

For technical questions, call

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### Electronic Media

#### Web Site

For further details on product specifications, visit the Design Aids section of our On-Line Pipeline: [www.hancor.com](http://www.hancor.com)