



Saturday, January 11, 2003

HANCOR SURE-LOK® PIPE SPECIFICATION



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Scope

This specification describes 4" - 60" (100 - 1500mm) Sure-Lok pipe for use in nonpressure drainage applications.

Pipe Requirements

Sure-Lok pipe shall have a smooth interior and annular exterior corrugations.

- 4" - 10" (100 - 250mm) shall meet AASHTO M252, Type S.
- 12" - 48" (300 - 1200mm) shall meet AASHTO M294, Type S.
- 60" (1500mm) shall meet AASHTO MP7.
- Manning's "n" value for use in design shall not be less than 0.010.

Joint Performance

Pipe shall be joined with the Sure-Lok (bell-and-spigot) joint meeting AASHTO M252, AASHTO M294 or MP7. The joint 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°F (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.

Fittings

Fittings shall conform to AASHTO M252, AASHTO M294, or AASHTO MP7-01. Fabricated fittings, where accessible, shall be welded on the interior and exterior joints.

Material Properties

Pipe and fitting material shall be high density polyethylene meeting ASTM D3350 minimum cell classification 324420C for 4" - 10" (100 - 250mm) diameters or 335420C for 12" - 60" (300 - 1500mm) diameters. The 12" - 60" (300 - 1500mm) pipe material shall be Hancor Resin 8™, which is a slow crack resistant material evaluated using the single point notched constant tensile load (SP-NCTL) test. Average SP-NCTL test specimens must exceed 24 hrs. with no test result less than 17 hrs.

Installation

Installation shall be in accordance with ASTM D2321 with the exception that minimum cover in trafficked areas shall be one foot (0.3m) for 4" - 48" (100 - 1200mm) pipe and 18" (0.5m) for 60" (1500mm) pipe.

Pipe Dimensions

Nominal Pipe I.D., in (mm)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	15 (375)	18 (450)
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Approx. 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)
Approx. Flare O.D., in (mm)	5.1 (129)	7.4 (188)	9.8 (249)	13.1 (333)	15.4 (391)	19.6 (498)	23.9 (607)
Approx. 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)
Approx. Weight* lb/20 ft stick (kg/6m stick)	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)
Corrugation	Annular						
Perforations	All diameters available with or without perforations						
Nominal Pipe I.D., in (mm)	24 (600)	30 (750)	36 (900)	42 (1050)	48 (1200)	60 (1500)	
Approx. Pipe O.D., in (mm)	28.4 (721)	36.0 (914)	41.4 (1052)	48.0 (1219)	55.0 (1397)	67.3 (1709)	
Approx. Flare O.D., in (mm)	29.9 (759)	37.9 (963)	43.6 (1107)	50.8 (1290)	57.4 (1458)	73.7 (1872)	
Approx. Pitch, in. (mm)	4.0 (102)	4.0 (102)	4.6 (117)	5.8 (147)	5.8 (147)	7.8 (198)	
Approx. Weight* lb/20 ft stick (kg/6m stick)	10.7 (156.1)	15.6 (227.7)	18.8 (274.4)	24.7 (360.5)	29.1 (424.7)	42.0 (612.9)	
Corrugation	Annular						
Perforations	All diameters available with or without perforations						

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