

Vylon® Pipe

Closed Profile PVC Pipe for Gravity Flow Sanitary Sewers

Vylon® Pipe

The first installation of Vylon Pipe occurred in 1987 in a direct bury gravity flow sewer application. Since then, millions of feet have been installed in projects all across the country. With its innovative I-beam construction and closed profile design Vylon Pipe meets the required minimum pipe stiffness of 46 psi found in ASTM F-1803 along with all the other requirements in that standard.



Unique Design

Vylon Pipe is made in diameters of 21" through 54" making it a much more cost effective way to meet the large diameter project requirements compared to using solid wall pipe without any loss of performance. Vylon's unique four-finned gasket design assures leak free joints when properly installed, and proper installation is easy with Vylon's two assembly marks clearly shown and the exterior gasket "J-leg" remaining visible during assembly.

Continuous Innovation

Since the first introduction of Vylon Pipe we have continued our spirit of innovation. First developed was our Vylon Slipliner Pipe in 1992 which allows the rehabilitation of an existing sewer during live flow conditions, and then our Vylon 75 pipe was introduced, providing a pipe stiffness of 75 psi to meet the growing demand for higher stiffness, more rugged sanitary sewer products.



Vylon pipe is a "profile" wall pipe using an I-beam construction.

Vylon® Pipe

Your best choice for today's Sanitary Sewers

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PVC Large Diameter Closed Profile Gravity Sewer Pipe (ASTM F-1803, PS46 - PS75)

Scope

This specification designates the requirements for polyvinyl chloride (PVC) pipe and fittings made to a controlled inside diameter in sizes 21" to 54" with an integral bell and elastomeric seal joints which meets the requirements of ASTM F-1803.

Materials

Pipe and fittings shall be made from polyvinyl chloride compounds which comply with the requirements for a minimum cell classification of 12364 as defined by ASTM D-1784.

Dimensions

Pipe sizes, inside diameters and typical dimensions shall conform to those listed in Table 1.

Joints

All pipe joints shall be of the bell and spigot type with elastomeric seals and conform to the requirements of ASTM D-3212. Gaskets shall be factory installed and chemically bonded to the bell end of the pipe. Gasket material shall conform to the requirements of ASTM F-477. Factory tapered spigot ends shall be made of PVC and shall be formed during the manufacturing process by heating the inner and / or outer wall and remolding. Spigot ends formed by using filler material such as rubber, neoprene or other filler materials that are attached or glued to the inner wall are not acceptable.

Physical Requirements

Pipe stiffness – minimum pipe stiffness shall be 46, 60, or 75 lb/in/in when tested in accordance with ASTM D-2412.

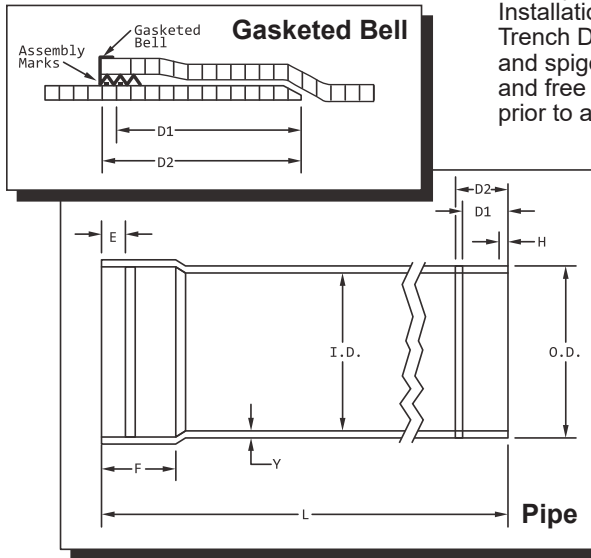
Impact resistance – no visual cracking or splitting of the waterway wall shall be evidenced when tested in accordance with ASTM D-2444 with a 20 lb. weight, tup B, flat plate holder B to a level of 220 ft. lbs.

Ductility – there shall be no evidence of cracking or splitting when pipe is flattened in a circumferential orientation between two flat plates by sixty percent (60%) of the original inside diameter or as required by ASTM F-1803.

Air tightness – each length of pipe shall pass a factory 3.5 psi air test as described in ASTM F-1803.

Marking

Each pipe shall be identified with the name of manufacturer, nominal size, cell classification, ASTM designation F-1803, the pipe stiffness designation, and manufacturer's date code.



Installation

Bedding, backfill and general installation requirements should comply with ASTM D-2321. Further details can be obtained from the Vylon PVC Gravity Sewer Pipe's Installation Guide and Vylon Trench Detail. Gaskets, bells and spigots shall be cleaned and free from soil or stones prior to assembly. Lubricant supplied by the pipe manufacturer shall be applied to the gasket. Spigots should be aligned with the bell and be pushed into place so that the second home mark is just visible adjacent to the bell entry point.

Table 1. Vylon Pipe Diameter Dimensions

NOMINAL SIZE	NOMINAL O.D.	BELL O.D.	I.D.	MIN. INNER WALL THK.	Y MINIMUM PROFILE HEIGHT
21"	22.29	24.79	20.75	0.080	0.770
24"	25.24	27.95	23.50	0.100	0.870
27"	28.46	31.39	26.50	0.115	0.980
30"	31.69	34.84	29.50	0.125	1.095
36"	38.13	41.72	35.50	0.150	1.315
42"	44.58	48.62	41.50	0.180	1.540
48"	51.02	55.50	47.50	0.210	1.760
54"	57.47	62.40	53.50	0.225	1.985

Table 2. Vylon Pipe Joint Dimensions

SIZE	SPIGOT HOMING MARKS		F SOCKET DEPTH	H BEVEL LENGTH MIN	L LENGTH
	D1	D2			
21"	7.0	8.0	10.0	2.0	15'-7.25"
24"	7.0	8.0	10.0	2.0	15'-7.25"
27"	8.0	9.0	10.0	2.0	15'-8.25"
30"	8.25	9.25	10.0	2.0	15'-8.50"
36"	8.25	9.25	10.5	2.0	15'-8.50"
42"	8.25	9.25	10.75	2.0	15'-8.50"
48"	9.50	10.50	11.0	2.0	15'-9.75"
54"	12.50	13.50	13.0	2.5	16'-0.75"