



TECHNICAL BULLETIN

Vylon Pipe Now Has
Double The Impact Resistance
30 – 54” Pipe

Vylon Pipe, the leader in profile wall pipe technology for the past 25 years, has announced a significant increase in pipe impact resistance.

Vylon Pipe began manufacturing its closed profile, PVC sewer pipe in 1985. Through the years improvements in the product and manufacturing technology have been made, giving Municipalities, Engineers, and Contractors the best, most cost effective sanitary sewer pipe product available today.

This spirit of continuous innovation has led to another breakthrough. Through improvements in manufacturing technology and compound formulation, Vylon Pipe has been able to double the impact resistance capability of its 30 inch through 54 inch pipe, giving our customers greater reliability and improved performance.

Why is impact resistance important? Impact resistance is a quality control test done at the time of manufacture and is not intended to simulate actual service conditions. However, it does give some measure of a pipe's ability to withstand the normal conditions encountered during handling and installation. Of course, good installation practices and reasonable handling and installation precautions should still be followed.

Just how good is the improvement? Vylon is manufactured to meet the requirements of ASTM F 1803. The current impact test requirement is for 220 ft-lbs. There can be no cracks or the pipe fails the test.

**Now the test is done
the same way,
but instead the test is
done using
an impact force of
440 ft-lbs.!!**



How does that stack up to the competition? Solid wall specifications are silent as to impact requirements, and one other profile product standard requires 220 ft-lbs. However, some profile pipe standards only require a test of 140 ft-lbs., or just a third of Vylon's impact resistance.

Vylon has 3 times the impact resistance of some profile wall products!

VYLON PIPE • 23240 Chagrin Boulevard • Suite 405 • Cleveland, OH 44122 • 800-382-0862 • FAX: 216-514-2040

Specification for PVC Large Diameter Closed Profile Gravity Sewer Pipe

Scope

This specification designates the requirements for closed profile polyvinyl chloride (PVC) pipe in sizes 21" to 54" in accordance with the requirements of ASTM F 1803 and as manufactured by Vylon Pipe.

Materials

Pipe 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.

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. The use of putty, filler, rubber or plastic inserts or wedges to form either the inner or outer wall of the pipe will not be allowed on spigots or bells.

Physical Requirements

Pipe stiffness – minimum pipe stiffness shall be 46 psi 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 and ASTM F 1803. Pipe 21" through 27" in size will be capable of passing an impact test of 220 ft-lbs. Pipe 30 inches and larger shall be capable of passing an impact test of 440 ft/lbs when tested at time of production. Independent laboratory certification shall be provided with the submittal that the pipe has been tested and been found capable of meeting this requirement.

Ductility – there shall be no evidence of cracking or splitting when pipe is flattened in a circumferential orientation between two flat plates in accordance with the requirements of 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 "PS-46" and manufacturer's date code.

Installation

Bedding, backfill and general installation requirements should comply with ASTM D 2321 and the Vylon Pipe Installation Guide. Gaskets, bells and spigots shall be cleaned and free of dirt prior to assembly. Lubricants supplied by the pipe manufacturer shall be applied to the bell and spigot surface up to the assembly stop mark including the chamfered end. Spigots should be aligned with the bell and be pushed into place so that the second assembly mark is just visible adjacent to the bell entry point.

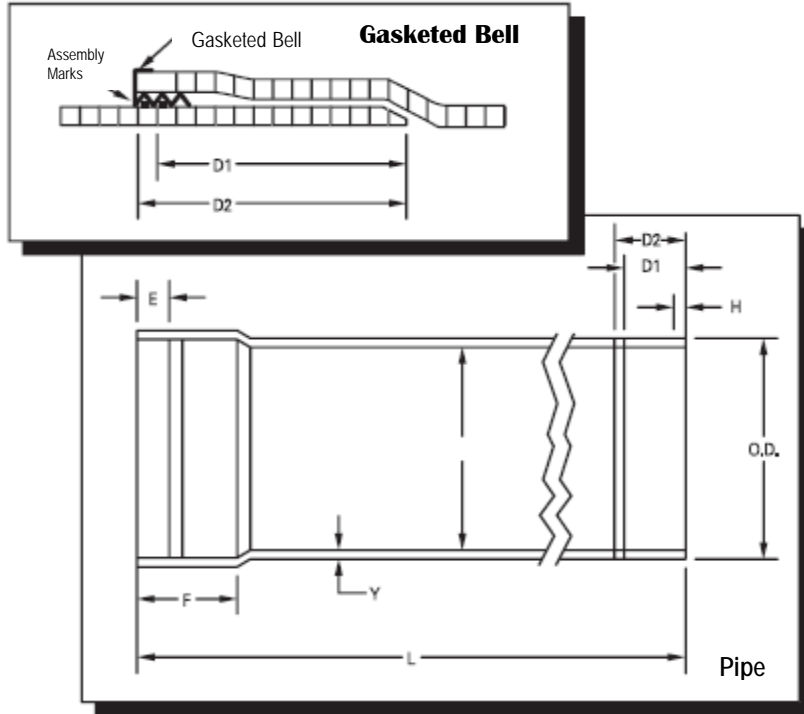


Table 1. Vylon Pipe Diameter Dimensions

SIZE	NOMINAL O.D.	BELL O.D.	I.D.	MIN. INNER THICKNESS	Y MINIMUM PROFILE HEIGHT
21"	22.110	23.38	20.75	0.080	0.680
24"	25.115	27.63	23.50	0.100	0.770
27"	28.232	31.00	26.50	0.115	0.866
30"	31.415	34.38	29.50	0.125	0.965
36"	37.800	41.13	35.50	0.150	1.150
42"	44.200	48.50	41.50	0.180	1.350
48"	50.570	54.63	47.50	0.210	1.535
54"	56.960	60.99	53.50	0.250	1.730

Table 2. Vylon Pipe Joint Dimensions

SIZE	SPIGOT HOMING MARKS D1	SPIGOT HOMING MARKS D2	E LIP MIN	F SOCKET DEPTH	H BEVEL LENGTH MIN	L LENGTH
21"	6.5	7.5	3.75	8.0	2.0	14'-9"
24"	6.5	7.5	3.75	8.0	2.0	14'-9"
27"	7.5	8.5	3.75	9.0	2.0	14'-10"
30"	7.5	8.5	3.75	9.0	2.0	14'-10"
36"	8.0	9.0	3.75	9.5	2.0	14'-10.5"
42"	8.5	9.5	3.75	9.75	2.0	14'-10.75"
48"	9.0	10.0	3.75	10.5	2.0	14'- 11.5"
54"	9.5	10.5	3.75	11.0	2.5	15'- 0"