Ultra-Blue™ IPS PVC Pressure Pipe

Short Form Specification
Pressure Class 200

Extrusion Technologies, Inc.

Scope
This specification outlines the requirements for Molecular Oriented Poly(Vinyl Chloride) (PVCO) pipe for potable water systems and other pressure pipe applications when manufactured in accordance with the requirements of ASTM F1483. When used for potable water systems the pipe shall meet ANSI/NSF 61 requirements.

Material
Ultra-Blue™ shall be manufactured from a Rigid Poly(Vinyl Chloride) compound with a cell classification of 12454 B in conformance with ASTM D1784. The gasketed joint system hall conform to ASTM D3139.

Classification
PVCO pipe will be made from standard PVC plastic pipe starting stock having a Hydrostatic Design Stress (HDS) of 2000 psi. The finished PVCO pipe shall have a Hydrostatic Design Stress (HDS) of 3550 psi.

Pipe
Ultra-Blue™ shall be manufactured with steel pipe (IPS) O.D.s in all sizes. Refer to Table 1 for dimensions and weights. The pipe shall be joined by means of a rubber ring bell joint, which shall be an integral and homogeneous part of the pipe barrel and which conforms to ASTM D3139. Spigot ends will be chamfered by the manufacturer.

Unloading
Normal care should be taken during unloading and handling to prevent damage to the pipe. Never roll the pipe off of the truck.

Trench Preparation
Trench depth for PVC pipe should be at least 24 inches or several inches below the frost line, whichever is greater. The trench bottom should be smooth and regular, free of rocks and all hard objects to allow uniform support of the pipe.

Narrow trenches may be used if the trench width is sufficient to allow for adequate tamping of the soil around the pipe.

Assembly
Inspect the bell, gasket and spigot to ensure that they are clean and free of dirt or foreign objects.

Lubricate the spigot end of the pipe with factory supplied lubricant. Align the spigot with the bell and push together by hand or with a block and bar until the assembly mark on the spigot is aligned with the end of the bell.

Radius of Curvature
PVC pipe can be installed with gradual curves by uniformly deflecting the pipe barrel. Minimum radii of curvature are in accordance with Uni-Bell PVC Pipe Association recommendations.

Joint Deflection
Joints are designed to permit 2º deflection without bell distortion. Fittings should be used for greater deflections.

Thrust Blocking
Care should be taken to provide adequate thrust blocking at all bends, intersections, ends and reductions in accordance with the engineer's recommendations.

Standards
PVCO Pipe shall conform to the following standards:
ASTM D1784 - Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds
ASTM D2241 - Performance Requirements - Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)
ASTM D3139 - Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals
ASTM F1483 - Specification for Oriented Poly(Vinyl Chloride) PVCO, Pressure Pipe
UNI-B-1 - Recommended Specification for Thermoplastic Pipe Joints, Pressure and Non-Pressure Applications
ANSI/NSF Standard No. 61 - Drinking Water System Components - Health Effects

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The Sealing System

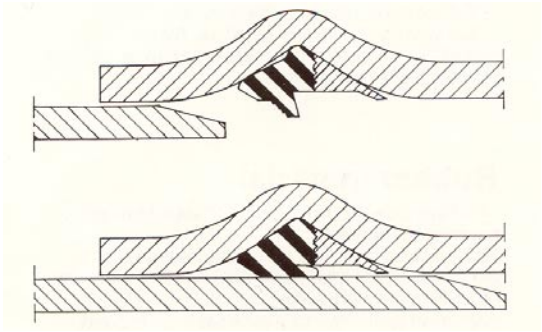
The Vinyl-Lock seal is a combined lip and compression seal, which is locked inside the pipe bell. Having the seal as an integral part of the pipe eliminates the disadvantage of separate sealing rings. It makes a tight seal in high or low pressure applications and offers little resistance when joining pipe lengths together.

Backfilling and Testing

Backfilling should be done immediately after installing each length of pipe. Backfill that will lay adjacent to the pipe should contain no large rocks or hard clods. Tamp around and under the pipe to ensure adequate soil support.

Pipe may be tested at any time after installation. Prior to testing make sure the line is properly thrust blocked. Do not exceed the maximum water pressure rating of the pipe.

Gasket Illustration



Pipe Dimensions and Weights

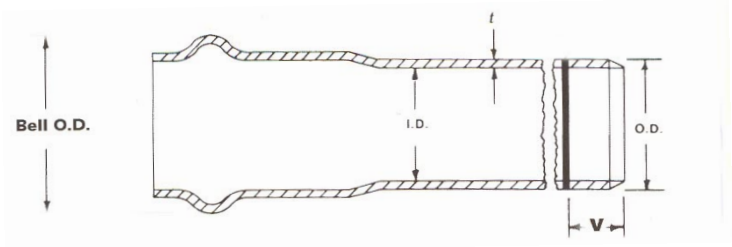


Table 1

Nom. Pipe Size		Pressure Class PSI @ 73oF	Bell O.D. Nom.		Barrel O.D. Nom.		Min. Wall Thickness *t*		Barrel I.D. Nom.		Nom. Stop Mark *v***		Approx. Weight	
in.	mm.		in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	lbs/ft	lbs/jnt
6	150	200	7.94	202	6.63	168	.182	4.62	6.26	159	4 1/2	114	2.53	50.6
8	200	200	10.04	255	8.63	219	.236	5.99	8.15	207	4 1/2	114	4.21	84.2
10	250	200	12.45	316	10.75	273	.295	7.49	10.16	258	5 1/2	140	6.37	127.4
12	300	200	14.63	372	12.75	324	.349	8.86	12.05	306	5 1/2	140	8.93	178.6

* specification for reference only and subject to change without notice ** plus or minus 1/2”

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