

White Bionax® PVCO Sewer Pressure Pipe

Product Data Sheet



< STANDARDS >



CSA B137.3.1



B137.3.1



D1784
D3139
F477
F1483



NSF 14

IPEX White Bionax PVCO pipe is used for sewer systems and other pressure pipe applications. Bionax systems are resistant to corrosion from aggressive soils and galvanic action. The large inner diameter and smooth finish of White Bionax PVCO pipe creates increased flow capabilities by reducing friction losses. White Bionax PVCO pipe systems are manufactured with cast iron outside diameter (CIOD). This is compatible with readily available waterworks components.

PRODUCT AVAILABILITY

Size Range	6" - 18" (150mm - 450mm) @ 235psi 16" - 18" (400mm - 450mm) @ 165psi
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Pressure Ratings (73°F / 23°C)	165 or 235 psi (1,135 or 1,620 kPa)
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Specifications

SCOPE

This specification provides the requirements for Molecularly Oriented Polyvinyl Chloride (PVCO) pipe for sewer pressure-pipe applications.

MATERIALS

- PVCO pipe shall be manufactured from rigid Polyvinyl Chloride (PVC) compound meeting the requirements of ASTM D1784 cell class 12454.
- Gaskets shall meet ASTM F477 for high-head applications.

HYDROSTATIC DESIGN BASIS

- Starting-stock PVC pipe shall have a Hydrostatic Design Basis (HDB) of 4,000 psi.
- Finished PVCO pipe shall have an HDB of 7,100 psi.

PIPE

- Pipe shall be molecularly oriented.
- Pipe shall be produced with cast-iron-pipe outside diameters (CIOD) in all sizes.
- Pipe shall be joined by integral-bell gasketed joints conforming to ASTM D3139.
- Pipe spigot ends shall be chamfered by the manufacturer.
- Pipe shall be colour-coded white.

CERTIFICATIONS

- PVCO pipe shall conform to AWWA C909 and is certified by CSA and BNQ to CSA B137.3.1.

STANDARDS

PVCO pipe shall conform to the following standards:

- ANSI/NSF Standard 14: Plastic Piping System Components and Related Materials
- ASTM D1784: Rigid Polyvinyl Chloride (PVC) Compounds
- ASTM D3139: Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals
- ASTM F1483: Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe
- ASTM F477: Elastomeric Seals (Gaskets) for Joining Plastic Pipe
- AWWA C909: Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe, 4 inch and Larger
- CSA B137.3.1: Molecularly Oriented Polyvinyl Chloride (PVCO) Pipe for Pressure Applications

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Sizes & Ratings CIOD Pipe

Pressure Class Rating
at 73°F/23°C for 165 psi/1,135 kPa

Pipe Size		OD		White Bionax® Product Code
inches	mm	inches	mm	
16	400	17.40	442	120103
18	450	19.50	495	120105

Pressure Class Rating
at 73°F/23°C for 235 psi/1,620 kPa

Pipe Size		OD		White Bionax® Product Code
inches	mm	inches	mm	
6	150	6.90	175	118201
8	200	9.05	230	118202
10	250	11.10	282	118203
12	300	13.20	335	118204
14	350	15.30	389	120101
16	400	17.40	442	120102
18	450	19.50	495	120104

All products are MTO

Dimensions

Pressure Class Rating
165 psi at 73°F (1,135 kPa at 23°C)

Size		Average OD		Min. Wall Thickness		Average ID	
in	mm	in	mm	in	mm	in	mm
16	400	17.40	442	0.395	10.04	16.57	421
18	450	19.50	495	0.443	11.25	18.54	471

Pressure Class Rating
235 psi at 73°F (1,620 kPa at 23°C)

Size		Average OD		Min. Wall Thickness		Average ID	
in	mm	in	mm	in	mm	in	mm
6	150	6.90	175	0.221	5.62	6.44	163
8	200	9.05	230	0.290	7.36	8.44	214
10	250	11.10	282	0.356	9.03	10.35	263
12	300	13.20	335	0.423	10.74	12.31	313
14	350	15.30	389	0.494	12.54	14.33	364
16	400	17.40	442	0.557	14.16	16.30	414

Design & Installation

For design and installation recommendations, please consult the IPEX Pressure Piping Systems Design Manual as well as the IPEX Municipal Systems Installation Guide. Both documents are available at ipexna.com

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About IPEX

About the IPEX Group of Companies

As leading suppliers of thermoplastic piping systems, the IPEX Group of Companies provides our customers with some of the world's largest and most comprehensive product lines. All IPEX products are backed by more than 50 years of experience. With state-of-the-art manufacturing facilities and distribution centers across North America, we have established a reputation for product innovation, quality, end-user focus and performance.

Markets served by IPEX group products are:

- Electrical systems
- Telecommunications and utility piping systems
- Industrial process piping systems
- Municipal pressure and gravity piping systems
- Plumbing and mechanical piping systems
- Electrofusion systems for gas and water
- Industrial, plumbing and electrical cements
- Irrigation systems
- PVC, CPVC, PP, PVDF, PE, ABS, and PEX pipe and fittings

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