

IPEX CENTURION®

Product Data Sheet



< STANDARDS >



AWWA
C900



CSA
B137.3



NSF
3624-250



NSF
61



FM 1612
DR 18 is FM
approved to
24" (600mm)



UL 1285
DR 18 is listed
to 24" (600mm)
DR 25 is listed
to 30" (750mm)

IPEX Centurion PVC pipe is used for underground watermain, process water or sewage pressure pipe applications. IPEX Centurion is resistant to corrosion from aggressive soils and galvanic action. The inherent smooth surface of PVC ensures that Centurion will resist interior surface build-up maintaining high water quality and minimizing pumping costs. IPEX Centurion is made with a Cast Iron Outside Diameter (CIOD) to ensure compatibility with waterworks valves, fittings and appurtenances such as joint restrainers.

PRODUCT AVAILABILITY

Material	PVC
Size Range	14" through 60" (350 mm – 1,500 mm)
Pressure Class	80 psi – 305 psi

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Short-Form Specification

General

Pipe must conform to AWWA C900 and be certified to CSA B137.3 "Rigid Polyvinyl Chloride (PVC) Pipe for Pressure Applications." Pressure Class or Rating of pipe shall be as assigned in the AWWA and CSA standards and all be derived using a Hydrostatic Design Stress of 2,000 psi (13.8 MPa). For pressure applications, each length of pipe must be hydrotested at twice the rating and a short-term pressure test must be conducted once per production run. Pipe to be IPEX Centurion or approved equal.

Material

The PVC compound used in IPEX Centurion Pipe shall have a Hydrostatic Design Basis of 4,000 psi (27.6 MPa) and shall be listed to NSF 61 for potable water service.

Gasket materials used in the manufacturing of IPEX Centurion Large Diameter Pressure Pipe comply with the requirements of ASTM F477 "Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe" for high-head applications.

Extruded Pipe

Extruded IPEX Centurion Pipe conforms to the following standards:

ANSI/NSF 61 "Drinking Water Systems Components – Health Effects"

AWWA C900, "(PVC) Pressure Pipe and Fabricated Fittings, 4 In. Through 60 In. (100 mm through 1,500 mm)"

BNQ NQ 3624-250 "Rigid Polyvinyl Chloride Pipes and Fittings for Conveyance and Distribution of Water under Pressure"

CSA B137.3 "Rigid Poly(Vinyl Chloride) (PVC) Pipe for Pressure Applications"

FM Standard 1612, Polyvinyl Chloride (PVC) Pipe and Fittings for Underground Fire Protection for DR18 up to 24" (600 mm) diameter

Listed to UL/ULC 1285 for DR18 up to 24" (600 mm) and DR25 to 30" (750 mm)

Capped/Bagged Pipe

In order to ensure maximum cleanliness of each length of pipe, specific project specifications may require that IPEX Centurion Pipe lengths be fitted with sealed end caps or bags.

Factory installed caps or bags are standard on the ends of each Centurion DR25 pipe, sizes 14" (350mm) – 36" (900mm), DR18 pipe, sizes 14" (350mm) – 30" (750mm), and DR14 pipe, sizes 14" (350mm) – 16" (400mm).

If required, all other sizes and DRs of Centurion pipe can be capped or bagged on request.

Gasket Joints

IPEX Centurion Pipe has a gasket joint design that meets the requirements of ASTM D3139 "Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals". Bell sections are fully thickened to have the same dimension ratio as the pipe barrel and conform to the requirements of section 6.2 of ASTM D3139.

Lubricant

All IPEX Centurion Pipe must be assembled with the manufacturer's non-toxic, water-soluble, NSF-listed lubricant.

Markings

IPEX Centurion Pipe is marked as prescribed in the above applicable standards to indicate size of the pipe, material designation, compliance to standard, and manufacturer's name or trademark.

Colour Coding

IPEX Centurion Pipe is color-coded blue or white.

Joining

The gasket shall be carefully fitted to the bell groove if not already factory-installed. Both bell and spigot shall be clean and free of debris before lubricant is applied. The pipe shall be joined by push-fitting bell and spigot joint to the depth line marked on the spigot. When pipe has been cut in the field, the end shall be made square and bevelled to a 15-degree chamfer and the insertion line shall be redrawn per IPEX's Pressure Pipe Installation Guide.

Dimensions

Size		PR/PC 80 (SDR 51)						PR/PC 100(SDR 41)						PR/PC 125 (SDR 32.5)					
		Average ID		Min. Wall Thickness		Average OD		Average ID		Min. Wall Thickness		Average OD		Average ID		Min. Wall Thickness		Average OD	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
14	350	-	-	-	-	-	-	14.6	369.7	0.37	9.5	15.3	388.6	14.4	364.7	0.47	12.0	15.3	388.6
16	400	16.7	423.7	0.36	9.19	17.4	442.0	16.6	420.4	0.43	10.8	17.4	442.0	16.3	414.5	0.54	13.6	17.4	442.0
18	450	18.7	475.9	0.38	9.74	19.5	495.3	18.5	471.1	0.48	12.1	19.5	495.3	18.3	464.8	0.6	15.2	19.5	495.3
20	500	20.8	527.0	0.42	10.8	21.6	548.6	20.5	521.8	0.53	13.4	21.6	548.6	20.3	514.6	0.67	16.9	21.6	548.6
24	600	24.8	629.6	0.50	12.9	25.8	655.3	24.5	623.3	0.63	16.0	25.8	655.3	24.2	615.0	0.8	20.2	25.8	655.3
30	750	30.7	780.9	0.63	15.9	32.0	812.8	30.4	773.2	0.78	19.8	32.0	812.8	30.0	762.8	0.98	25.0	32.0	812.8
36	900	36.8	934.7	0.75	19.1	38.3	972.8	36.4	925.3	0.93	23.7	38.3	972.8	35.9	912.9	1.18	29.9	38.3	972.8
42	1,050	42.6	1,082.8	0.87	22.2	44.5	1,130.3	42.2	1,071.4	1.09	27.5	44.5	1,130.3	41.6	1,056.6	1.37	34.8	44.5	1,130.3
48	1,200	48.7	1,236.2	1.00	25.3	50.8	1,290.3	48.2	1,223.0	1.24	31.5	50.8	1,290.3	47.7	1,211.1	1.56	39.6	50.8	1,290.3
54	1,350	55.3	1,404.6	1.13	28.7	57.6	1,462.0	54.8	1,391.9	1.40	35.7	57.6	1,462.0	54.1	1,374.1	1.77	45.0	57.6	1,462.0
60	1,500	59.2	1,503.2	1.21	30.7	61.6	1,564.9	58.6	1,488.4	1.50	38.1	61.6	1,564.9	-	-	-	-	-	-

Size		PR/PC 165 (DR25)						PR/PC 235 (DR18)						PR/PC 305 (DR14)					
		Average ID		Min. Wall Thickness		Average OD		Average ID		Min. Wall Thickness		Average OD		Average ID		Min. Wall Thickness		Average OD	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
14	350	14.1	357.5	0.61	15.6	15.3	388.6	13.6	345.4	0.85	21.6	15.3	388.6	13.1	333.0	1.09	27.8	15.3	388.6
16	400	16.0	406.6	0.70	17.7	17.4	442.0	15.5	392.9	0.97	24.6	17.4	442.0	14.9	378.8	1.24	31.6	17.4	442.0
18	450	17.9	455.7	0.78	19.8	19.5	495.3	17.3	440.3	1.08	27.5	19.5	495.3	-	-	-	-	-	-
20	500	19.9	504.7	0.86	22.0	21.6	548.6	19.2	487.6	1.20	30.5	21.6	548.6	-	-	-	-	-	-
24	600	23.7	602.9	1.03	26.2	25.8	655.3	22.9	582.5	1.43	36.4	25.8	655.3	-	-	-	-	-	-
30	750	29.4	747.8	1.28	32.5	32.0	812.8	28.4	722.4	1.78	45.2	32.0	812.8	-	-	-	-	-	-
36	900	35.2	895.0	1.53	38.9	38.3	972.8	-	-	-	-	-	-	-	-	-	-	-	-
42	1,050	40.9	1,039.9	1.78	45.2	44.5	1,130.3	-	-	-	-	-	-	-	-	-	-	-	-
48	1,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	1,300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	1,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Installation

Please consult with the IPEX PVC Pressure Pipe and Fittings Installation Guide for complete installation information including:

- Receiving and Handling Pipe Shipments
- Assembling IPEX Joints
- Trench Preparation
- Curvature of the Pipeline
- Lowering Pipe and Fittings into Trench
- Cutting and Chamfering the Pipe

The guide is available at www.ipexna.com

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
- Irrigation systems

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