



< STANDARDS >



AWWA
MEMBER
AWWA
C905



CSA
CB137.3



NQ
3624-250



NSF 61



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



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

introduction

IPEX Centurion is PVC pipe used for potable water systems and other pressure pipe applications. IPEX Centurion systems are resistant to corrosion from aggressive soils and galvanic action. The glass-like finish of PVC reduces friction losses and eliminates the tuberculation common in iron pipes. As a result, pumping costs are reduced and water quality is maintained. IPEX Centurion systems are manufactured with a cast iron outside diameter (CIOD). This is compatible with waterworks valves, appurtenances and restrainers.

PRODUCT AVAILABILITY

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

Short-Form Specification

General

Pipe must conform to AWWA C905 and be certified to CSA B137.3 "RIGID POLYVINYL CHLORIDE (PVC) PIPE FOR PRESSURE APPLICATIONS." DR51, 41, 32.5, 25, 18, and 14 pipe must have the following pressure/class ratings: 80 psi (550 kPa), 100 psi (690 kPa), 125 psi (860 kPa), 165 psi (1,140 kPa), 235 psi (1,620 kPa) and 305 psi (2,100 kPa). 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

PVC Poly(Vinyl Chloride) used in the manufacturing of IPEX Centurion Large Diameter Pressure Pipe complies with ASTM Standard D1784, Standard Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds, having a cell classification 12454. The material also has a hydrostatic design basis of 4000 psi (27.6 MPa). The compound is listed with NSF 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 Large Diameter Gasketed Pressure Pipe conforms to the following standards:

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

AWWA C905 "Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings 14 in. through 48 in. (350 mm through 1200 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" (up to 60" (1500 mm))

FM Standard 1612 for "Underground Fire protection Piping Systems" for DR18 to DR25

ULC listed for fire protection systems for DR18 14" through 24" (350 mm – 600 mm)

Capped Pipe

Specific project specifications may require that IPEX Centurion Large Diameter Gasketed Pressure Pipe lengths be fitted with sealed end caps. If required the end caps are fitted into each length of pipe at IPEX's production facility to ensure maximum cleanliness of the pipes.

Gasket Joints

IPEX Centurion Large Diameter Gasketed Pressure 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 Large Diameter Gasketed Pressure Pipe must be assembled with the manufacturer's nontoxic, water-soluble, NSF-listed lubricant.

Markings

IPEX Centurion Large Diameter Gasketed Pressure Pipe are 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.

Color Coding

IPEX Centurion Large Diameter Gasketed Pressure Pipe is color-coded blue and 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 10-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	-	-	-	-	-	-	16.6	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	34.0*	863.6*	2.13*	54.1*	38.3*	972.8*	-	-	-	-	-	-
42	1,050	40.9*	1,039.9*	1.78*	45.2*	44.5*	1,130.3*	39.6*	1,004.8*	2.47*	62.8*	44.5*	1,130.3*	-	-	-	-	-	-
48	1,200	46.7*	1,187.2*	2.03*	51.6*	50.8*	1,290.3*	-	-	-	-	-	-	-	-	-	-	-	-
54	1,300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	1,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Coming Soon

www.ipexna.com

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IPEX
Committed to Excellence

Installation

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

- Receiving and Handling Pipe Shipments
- Trench Preparation
- Lowering Pipe and Fittings into Trench
- Assembling IPEX Joints
- Curvature of the Pipeline
- 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
- Industrial, plumbing and electrical cements
- Irrigation systems
- PVC, CPVC, PP, PVDF, PE, ABS, and PEX pipe and fittings

Products are manufactured by IPEX Inc.

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A policy of ongoing product improvement is maintained. This may result in modifications of features and/or specifications without notice.

