



MUNICIPAL

IPS Pressure Pipe

Servicing many different pressure systems and applications

Westlake
Pipe & Fittings

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ABOUT IPS PRESSURE PIPE

Whether Westlake Pipe & Fittings IPS Pressure Pipe is manufactured with Iron Pipe Size (IPS) diameters and is available with either solvent weld ends or factory-installed Rieber gaskets in the bells.

Our IPS Pressure Pipe is offered in Standard Dimension Ratios (SDR) 21, 26, 32.5 and 41 with Pressure Ratings of 200, 160, 125 and 100psi, respectively. Westlake Pipe & Fittings IPS Pressure Pipe is available in 13mm - 450mm (½" - 18") diameters and 3 or 6.1 metre (10' or 20') lengths.

Westlake Pipe & Fittings IPS Pressure Pipe can service the following applications:

- potable water systems
- irrigation piping
- transmission pipe
- sewer force mains
- stormwater disposal
- mechanical piping

Westlake Pipe & Fittings IPS Pressure Pipe shall be manufactured with iron pipe outside diameters and certified to CSA B137.3 (Rigid Polyvinyl Chloride PVC Pipe for Pressure Applications) and conform to all the requirements of ASTM D2241 Polyvinyl Chloride (PVC) Pressure-Rated Pipe (SDR).

CSA Certified – Gasketed and Solvent Weld	
Dimension Ratio	Nominal Size
SDR41	6, 8, 10, 12
SDR32.5	4, 6, 8, 10, 12
SDR26	1½, 2, 2½, 3, 4, 6, 8, 10, 12, 14, 16, 18
SDR21	½, ¾, 1, 1¼, 1½, 2, 3, 4, 6, 8, 10, 12, 14, 16, 18

CERTIFICATIONS

Westlake Pipe & Fittings IPS Pressure Pipe proudly meet the following standards:



PRODUCT QUALITY

Westlake Pipe & Fittings is recognized for its high quality products. Our state-of-the-art extrusion equipment and computerized material handling system ensure consistency. Our quality control testing guarantees that the pipe you install will outperform the application. In Westlake Pipe & Fittings extrusion facilities, each operator is responsible for quality. Pipe is continually tested in our quality control laboratory to ensure conformance with CSA requirements. No pipe enters our yard without the seal of approval from our quality control team.

PVC MATERIAL

The PVC material used in the manufacture of our pipe meets the physical properties of PVC class 12454 as specified in ASTM D1784.

HYDROSTATIC DESIGN BASIS

The material has a Hydrostatic Design Basis of 27.58MPa (4,000psi) for water at 23°C (73°F).

INSTALLATION

Westlake Pipe & Fittings IPS Pressure Pipe is cost effective to install compared to traditional pipe products. Joint assembly can be handled in the trench with minimal manpower. For additional information, refer to our Pressure Pipe and Fittings Installation Guide at www.westlakepipe.com.

SOLVENT WELD PIPE

Refer to Westlake Pipe & Fittings Solvent Cementing Guide on our website www.westlakepipe.com.

FITTINGS

Westlake Pipe & Fittings carries a complete line of molded and fabricated pressure fittings to complement our pipe. Our IPS pressure fittings are manufactured to meet CSA B137.3.



COLOUR CODING

Westlake Pipe & Fittings IPS Pressure Pipe is normally colour coded white. It is also available in purple, green, blue and grey as a special order.

PRODUCT PROPERTIES

There are many advantages for using our IPS Pressure Pipe. Our pipe is corrosion proof, has a smooth bore and is resistant to ultra violet aging or biological attack. The same pure water that enters the pipe leaves the pipe.

CORROSION PROOF

One of the problems associated with a potable water system using conventional pipe materials is corrosion. Westlake Pipe & Fittings' IPS Pressure Pipe is essentially inert and non-conductive, leaving it immune to electrolytic corrosion. Acidic and alkaline soils also have no effect on Westlake Pipe & Fittings IPS Pressure Pipe.

The interior wall of PVC pipe is very smooth with a Hazen-Williams C-factor of 150 for the design of PVC piping systems. This factor reduces head loss, maintains pressure and excellent water quality throughout the life of the system as compared to conventional pipe materials.

BIOLOGICAL ATTACK

The performance of PVC pipe in severe environments has been studied since the 1950's. These studies have found that PVC pipe will not deteriorate or breakdown under biological attack from micro and macro-organisms. Investigations have failed to document a single case in which buried PVC pipe products have suffered degradation or deterioration due to biological attack.

EFFECTS OF ULTRA-VIOLET AGING

PVC pipe was exposed to sunlight for two years. After two years of exposure under some of the worst conditions in North America, the tensile strength, impact strength and pipe stiffness were then tested. The results showed that the effects of ultra-violet radiation on PVC pipe were considered to be negligible.

EFFECTS OF TEMPERATURE

The pressure rating of IPS pipe is reduced when a pipeline temperature exceeds 23°C (73°F). The table below shows the reduction factors that need to be applied to the pressure rating for these situations.

Maximum Service Temperature °C (°F)	De-Rating Factor
27 (80)	0.88
32 (90)	0.75
38 (100)	0.62
43 (110)	0.50
49 (120)	0.40
54 (130)	0.30
60 (140)	0.22

IPS Pressure Pipe Product Offering	
Standard Dimension Ratio (SDR)	Nominal Size mm (in)
SDR21 (Series 200)	13 (½)
	19 (¾)
	25 (1)
	32 (1¼)
	40 (1½)
	50 (2)
	60 (2½)
	75 (3)
	100 (4)
	150 (6)
	200 (8)
	250 (10)
	300 (12)
SDR26 (Series 160)	350 (14)
	400 (16)
	450 (18)
	40 (1½)
	50 (2)
	60 (2½)
	75 (3)
	100 (4)
	150 (6)
SDR32.5 (Series 125)	200 (8)
	250 (10)
	300 (12)
	350 (14)
	400 (16)
	450 (18)
SDR41 (Series 100)	75 (3)
	100 (4)
	150 (6)
	200 (8)
	250 (10)
	300 (12)

 Solvent Weld Ends only

 Solvent Weld or Gasketed Ends

 Gasketed Ends only

Learn about our commitment to product innovation at westlakepipe.com.

