

# BULLETIN

# Ultra-Rib® Open Profile Sewer Pipe & Fittings

PVC Gravity Flow Systems manufactured to CSA and ASTM standards

# IPEX Ultra-Rib<sup>®</sup> Pipe and Fittings (200 mm – 600 mm) (8" – 24" ) CSA B182.4 and ASTM F794

IPEX Ultra-Rib<sup>®</sup> is a gravity flow PVC sewer pipe with concentric reinforcing ribs that encircle the pipe to provide superior ring stiffness and performance. It is an extruded, seamless pipe made from high grade PVC compound.

Ultra-Rib is available in standard sewer sizes from 200mm to 600 mm (8" - 24"). Its optimized profile design offers strength and reliability, as well as economy and superior flow rates.



## **Features and Benefits:**

Ultra-Rib offers many advantages over traditional materials, as well as other plastic sewer pipes.

 Tight Joints & Lower Treatment Costs

Eliminate infiltration and exfiltration. Ultra-Rib's 50 psi capable joints easily outperform concrete and corrugated PE joints.

#### • Superior Flow Characteristics

Because of the smooth inside wall of Ultra-Rib, a Manning's coefficient of 0.009 can be used when designing systems using Ultra-Rib pipe. This compares with Manning's coefficients of up to 0.023 for other materials like clay or concrete.

#### Abrasion Resistance

Ultra-Rib has been proven to be more abrasion resistant than other profile pipes, and has outperformed concrete pipe in testing at California State University.

#### Chemical Resistance

PVC is virtually immune to chemical attack from any type of sewage. Hydrogen Sulphide attack, which causes millions of dollars of damage to concrete and metal infrastructure, will not affect Ultra-Rib.

#### Stress Crack Resistance

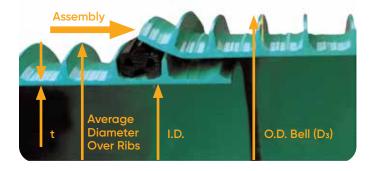
While some HDPE pipes have been found to crack prematurely under load, Ultra-Rib's tough PVC construction and superior formulation has been proven to be immune to these problems.

ASTM Embedment Material	Manufactured Granular Angular	Clean Sand & Gravel		Sand & Gravel with Fines		Silt & Clay
Classification	Class I	Class II		Class III		Class IV
Density (Proctor) AASHO T-99	90%	90%	80%	90%	85%	85%
E' kPa (psi)	20 700 (3,000)	13 800 (2,000)	7 000 (1,000)	7 000 (1,000)	3 500 (500)	2 760 (400)
Height of Cover m ft						
1 3.3	0.3	0.5	1.0	1.0	1.7	2.1
2 6.6	0.4	0.5	1.0	1.0	1.8	2.2
3 9.8	0.4	0.6	1.2	1.2	2.2	2.6
4 13.1	0.6	0.8	1.6	1.6	2.9	3.5
5 16.4	0.7	1.1	2.0	2.0	3.7	4.4
6 19.7	0.9	1.3	2.4	2.4	4.4	5.3
7 23.0	1.0	1.5	2.8	2.8	5.1	6.1
8 26.3	1.2	1.7	3.2	3.2	5.9	7.0
9 29.5	1.3	1.9	3.6	3.6	6.6	7.9
10 32.8	1.4	2.1	4.0	4.0	7.3	8.8
15 49.2	2.2	3.2	6.0	6.0	11.0	13.1

## Percent (%) Deflection of Ultra-Rib pipe

Not Recommended

Dimensions												
Pipe Size			Average I.D. d		Average Diameter Over Ribs D		O.D. at Bell D₃		Waterway Wall t			
mm	in	mm	in	mm	in	mm	in	mm	in			
200	8	200	7.89	224	8.80	248	9.78	2.20	0.087			
250	10	251	9.86	280	11.00	311	12.22	2.30	0.091			
300	12	298	11.74	333	13.10	371	14.59	2.60	0.102			
375	15	365	14.37	408	16.04	453	17.82	2.80	0.110			
450	18	448	17.65	497	19.57	553	21.77	3.30	0.130			
525	21	527	20.75	579	22.80	638	25.14	4.06	0.160			
600	24	597	23.50	650	25.61	717	28.24	4.58	0.180			



#### Contact us

Visit our website: ipexna.com

Toll Free: (866) 473-9462

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