

# ULTRA-RIB PIPING SYSTEMS

8" - 24" (200mm - 600mm)

## Ultra-Rib®

IPEX Ultra-Rib® 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 600mm (8" - 24"). Its optimized profile design offers strength and reliability, as well as economy and superior flow rates.

### APPLICATIONS

- Sanitary and Storm Sewers
- Industrial Lines
- Highway & Culvert

### STANDARDS



D1784  
F477



3624-135



B182.4

### ADVANTAGES

- 1 Tight Joints and Lower Treatment Costs**  
Eliminate infiltration and exfiltration. Ultra-Rib's 50 psi capable joints easily outperform concrete and corrugated PE joints.
- 2 Superior Flow Characteristics**  
Because of the smooth inside wall of Ultra-Rib, a Manning's number of 0.009 can be used when designing systems using Ultra-Rib pipe. This compares with Manning's numbers of up to 0.023 for other materials like clay or concrete.
- 3 Abrasion Resistance**  
Ultra-Rib has been proven to be more abrasion-resistant than other profile pipes, and has out-performed concrete pipe in testing at California State University.
- 4 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.
- 5 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.



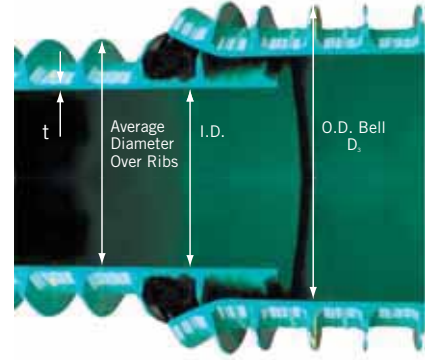
### DID YOU KNOW?

Ultra-Rib's seamless 'Open Profile' wall has the same stiffness as DR35, but with a more efficient use of structural material.



## DIMENSIONS

Pipe Size		Average I.D. d		Average Diameter Over Ribs D		O.D. at Bell D <sub>3</sub>		Waterway Wall t	
in	mm	in	mm	in	mm	in	mm	in	mm
8	200	7.89	200	8.80	224	9.78	248	0.087	2.20
10	250	9.86	251	11.00	280	12.22	311	0.091	2.30
12	300	11.74	298	13.10	333	14.59	371	0.102	2.60
15	375	14.37	365	16.04	408	17.82	453	0.110	2.80
18	450	17.65	448	19.57	497	21.77	553	0.130	3.30
21	525	20.75	527	22.80	579	25.14	638	0.160	4.06
24	600	23.50	597	25.61	650	28.24	717	0.180	4.58



## SHORT FORM SPECIFICATIONS

### GENERAL

IPEX Ultra-Rib PVC Pipe is available in sizes 200mm, 250mm, 300mm, 375mm, 450mm, 525mm and 600mm (8" - 24").

### MATERIAL

Ultra-Rib PVC Pipe shall be made of PVC compound having a cell classification of 12454B as defined in ASTM D1784B.

### PRODUCT

The pipe shall be extruded with a smooth interior and with solid reinforcing ribs on the exterior at right angles to the pipe. The space between any two ribs serves as a gasket race.

Ultra-Rib PVC pipe and fittings shall be certified to CSA B182.4 "Profile (Ribbed) PVC Sewer Pipe and Fittings", and shall meet the requirements of ASTM F794 "Standard Specification for Poly (Vinyl Chloride) (PVC) Ribbed Gravity Sanitary Pipe and Fittings Based on Controlled Inside Diameter".

### PIPE STIFFNESS

Pipe stiffness must be 320 kPa (46 lbs/in of sample length per inch of deflection) at 5% vertical deflection when tested according to ASTM D2412.

### JOINTS

Gaskets for use with Ultra-Rib pipe are manufactured from EPDM and are designed specifically for use with Ultra-Rib pipe. This unique design is also available in Nitrile.

Sealing gaskets shall meet the requirements of CSA B182.4 and ASTM F477, with the additional requirement that joints shall be

able to withstand 345 kPa (50 psi) hydrostatic pressure.

The joint will not leak at 10.8 psi or 25' (74 kPa) or 7.5m) of head with -74 kPa (22") Hg vacuum with spigot under 5% ring deflection and joint at full axial deflection.

### MOULDED FITTINGS

Injection-moulded gasketed PVC fittings of ribbed construction shall be certified to CSA B182.1 or CSA B182.2 and used for direct connection to Ultra-Rib pipes in available sizes.

### FABRICATED FITTINGS

Fittings fabricated for use with Ultra-Rib pipe shall be certified to CSA B182.4 or ASTM F794 and may include legs of PVC pipe meeting CSA B182.1, B182.2 or ASTM D3034 or F679.

### LUBRICANT


Assembly of Ultra-Rib pipe and fittings shall be done in accordance with the manufacturer's directions using only IPEX PVC pipe lubricant. Substitute lubricants shall not be used. IPEX lubricant shall be applied to the inside of the bell to be joined, to a uniform thickness for a distance inside the bell equivalent to three ribs from outside edge.

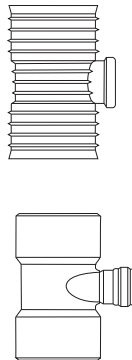
### COLOUR CODING

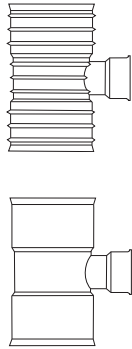
Pipe shall be colour-coded green.



# PRODUCTION SELECTION CHART

	Dimension		Product Code
	inches	mm	
<b>Ultra-Rib Pipe</b> 	8	200	086008
	10	250	086010
	12	300	086012
	15	375	086015
	18	450	086018
	21	525	086021
	24	600	086024

	Dimension		Product Code
	inches	mm	
<b>Tee B x B x G</b> (Ultra-Rib x Ultra-Rib x DR35 or 28) 	8 x 4	200 x 100	087150
	8 x 5	200 x 135	087151
	8 x 6	200 x 150	087152
	8	200	087153
	10 x 4	250 x 100	087154
	10 x 5	250 x 135	087155
	10 x 6	250 x 150	087156
	10 x 8	250 x 200	087157
	12 x 4	300 x 100	087159
	12 x 5	300 x 135	087160
	12 x 6	300 x 150	087161
	12 x 8	300 x 200	087162
	12 x 10	300 x 250	087163
	12	300	087164
	15 x 4	375 x 100	087165
	15 x 5	375 x 135	087166
	15 x 6	375 x 150	087167
	15 x 8	375 x 200	087168
	15 x 10	375 x 250	087169
	15 x 12	375 x 300	087170
	18 x 4	450 x 100	087172
	18 x 5	450 x 135	087173
	18 x 6	450 x 150	087174
	18 x 8	450 x 200	087175
	18 x 10	450 x 250	087176
	18 x 12	450 x 300	087177
	18 x 15	450 x 375	087178
	18	450	087179
21 x 4	525 x 100	087180	
21 x 5	525 x 135	087181	
21 x 6	525 x 150	087182	
21 x 8	525 x 200	087183	
21 x 10	525 x 250	087184	
21 x 12	525 x 300	087185	
21 x 15	525 x 375	087186	
21 x 18	525 x 450	087187	
21	525	087188	
24 x 4	600 x 100	087190	
24 x 5	600 x 135	087199	
24 x 6	600 x 150	087191	
24 x 8	600 x 200	087192	
24 x 10	600 x 250	087193	
24 x 12	600 x 300	087194	
24 x 18	600 x 450	087196	
24 x 21	600 x 525	087197	
24	600	087198	

	Dimension		Product Code
	inches	mm	
<b>Tee B x B x B</b> (Ultra-Rib x Ultra-Rib x Ultra-Rib) 	8	200	087100
	10 x 8	250 x 200	087101
	10	250	087102
	12 x 8	300 x 200	087103
	12 x 10	300 x 250	087104
	12	300	087105
	15 x 8	375 x 200	087106
	15 x 10	375 x 250	087107
	15 x 12	375 x 300	087108
	15	375	087109
	18 x 8	450 x 200	087110
	18 x 10	450 x 250	087111
	18 x 12	450 x 300	087112
	18 x 15	450 x 375	087113
	18	450	087114
	21 x 8	525 x 200	087115
	21 x 10	525 x 250	087116
	21 x 12	525 x 300	087117
	21 x 15	525 x 375	087118
	21 x 18	525 x 450	087119
	21	525	087120
	24 x 8	600 x 200	087121
	24 x 10	600 x 250	087720
	24 x 12	600 x 300	087123
	24 x 15	600 x 375	087124
	24 x 18	600 x 450	087125
	24 x 21	600 x 525	087126
	24	600	087127