# ULTRA-RIB PIPING SYSTEMS

## Ultra-Rib<sup>®</sup>

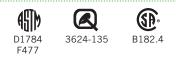
IPEX Ultra-Rib<sup>®</sup> is a gravity flow PVC sewer pipe with concentric reinforcing ribs that encircle the pipe to provide superior ring stiffness and performance. It is an extruded, seamless pipe made from high grade PVC compound.

Ultra-Rib is available in standard sewer sizes from 200mm to 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



## 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.

## A D V A N T A G E S

#### **Tight Joints and 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 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

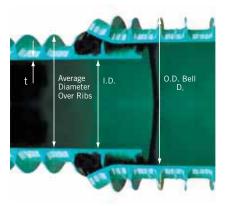
PVC is virtually immune to chemical attack from any type of sewage. Hydrogen sulphide attack, which causes millions of dollars of damage to concrete and metal infrastructure, will not affect Ultra-Rib.

## 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.

## DIMENSIONS

Pipe Size		Average I.D. d		Average Diameter Over Ribs D		O.D. at Bell D₃		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.

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	Dime	Dreduct		
	inches mm		Product Code	
Wye B x B x G	(Ultra-Rib x Ult	ra-Rib x DR35 c	or 28)	
	8 x 4	200 x 100	087250	
	8 x 5	200 x 135	087251	
	8 x 6	200 x 150	087252	
	8	200	087253	
	10 x 4	250 x 100	087254	
	10 x 5	250 x 135	087255	
	10 x 6	250 x 150	087256	
	10 x 8	250 x 200	087257	
	10	250	087258	
	12 x 4	300 x 100	087259	
	12 x 5	300 x 135	087260	
	12 x 6	300 x 150	087261	
	12 x 8	300 x 200	087262	
	12 x 10	300 x 250	087263	
	12	300	087264	
	15 x 4	375 x 100	087265	
	15 x 5	375 x 135	087266	
	15 x 6	375 x 150	087267	
	15 x 8	375 x 200	087268	
	15 x 10	375 x 250	087269	
	15 x 12	375 x 300	087270	
	15	375	087271	
	18 x 4	450 x 100	087272	
	18 x 5	450 x 135	087273	
	18 x 6	450 x 150	087274	
	18 x 8	450 x 200	087275	
	18 x 10	450 x 250	087276	
	18 x 12	450 x 300	087277	
	18 x 15	450 x 375	087278	
	18	450	087279	
	21 x 4	525 x 100	087235	
	21 x 5	525 x 135	087236	
	21 x 6	525 x 150	087237	
	21 x 8	525 x 200	087238	
	21 x 10	525 x 250	087239	
	21 x 12	525 x 300	087240	
	21 x 15	525 x 375	087241	
	21 x 18	525 x 450	087242	
	21	525	087243	
	24 x 4	600 x 100	087360	
	24 x 5	600 x 135	087359	
	24 x 6	600 x 150	087361	
	24 x 8	600 x 200	087362	
	24 x 10	600 x 250	087363	
	24 x 12	600 x 300	087364	
	24 x 15	600 x 375	087365	
	24 x 18	600 x 450	087366	
	24 x 21	600 x 525	087367	
	24	600	087368	

Dimen	Product	
inches	mm	Code

## Wye B x B x B (Ultra-Rib x Ultra-Rib x Ultra-Rib)

	• • • •			
		8	200	087280
		10 x 8	250 x 200	087281
		10	250	087282
		12 x 8	300 x 200	087283
		12 x 10	300 x 250	087284
		12	300	087285
		15 x 8	375 x 200	087286
		15 x 10	375 x 250	087287
		15 x 12	375 x 300	087288
		15	375	087289
		18 x 8	450 x 200	087290
		18 x 10	450 x 250	087291
		18 x 12	450 x 300	087292
		18 x 15	450 x 375	087293
		18	450	087294
		21 x 8	525 x 200	087295
		21 x 10	525 x 250	087296
		21 x 12	525 x 300	087297
		21 x 15	525 x 375	087298
		21 x 18	525 x 450	087299
		21	525	087316
		24 x 8	600 x 200	087317
		24 x 10	600 x 250	087318
		24 x 12	600 x 300	087319
		24 x 15	600 x 375	087320
		24 x 18	600 x 450	087321
		24 x 21	600 x 525	087322
		24	600	087323

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