ENVIROSEWER® & ENVIROPIPES STORMWATER PIPE

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ENVIROPIPES STORMWATER PIPES

In recent years the specification and use of dual wall High Density Polyethylene (HDPE) corrugated pipe for storm water has increased dramatically. Advantages, such as the pipe's strength, durability and joint integrity increase the long-term cost-effectiveness.

Results show that forward-thinking municipalities are realising the future of storm water management relies on the best available technology. HDPE (PE100) corrugated pipes are manufactured from the highest quality materials and are the most technologically advanced product available to move storm water and waste water.

HDPE (PE100) corrugated pipe is the proven, reliable, cost-effective and safe solution for your long-term drainage needs.

Storm water management is a critical component to ensure the long-term viability of public and private economic investments. Enviropipes offers a range of products to meet the critical demands of engineering design and contractor communities.

HDPE (PE100) corrugated pipes are manufactured with a co-extruded twin wall. The end product is a smooth bore inner layer and a corrugated outer layer which provides a high stiffness to weight ratio for non-pressure applications.

Enviropipes Stormwater Pipes are manufactured in accordance with AS/NZS 5065.

ENVIROSEWER® PIPES

EnviroSewer® Pipes provide economical and high performing solutions to meet the growing demands of sewer networks. EnviroSewer® Pipes are manufactured from High Density Polyethylene (PE100) which gives more options when designing a sewer system. Enviropipes introduces a wide array of innovations for the trunk line market and provides unparalleled resistance to the combination of hydrogen sulphide attack, abrasion and corrosion.

EnviroSewer® Pipes are manufactured in accordance with AS/NZS 5065.



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DIMENSIONS

POLYETHYLENE (PE100) CORRUGATED PIPE SIZES

NOMINAL DIAMETER (DN)	OUTSIDE DIAMETER (mm)	INTERNAL DIAMETER (mm)	NOMINAL OVERALL LENGTH (mm) WA	LENGTH (SP/SO) EFFECTIVE LENGTH (mm) WA	NOMINAL OVERALL LENGTH (mm) QLD & VIC	LENGTH (SP/ SO) EFFEC- TIVE LENGTH (mm) QLD & VIC	STIFFNESS CLASS (SN)	JOINTING METHOD
100	110	95	6000	6000	NA	NA	8	Rubber Ring
150	160	138	6000	6000	NA	NA	8	Rubber Ring
225	257	223	6070	5950	6340	6200	8	Rubber Ring
300	339	294	6060	5915	6340	6165	8	Rubber Ring
375	425	371	6020	5840	6280	6060	8	Rubber Ring
450	508	438	6030	5830	6300	6065	8	Rubber Ring
525	595	514	6000	5735	6240	5970	8	Rubber Ring
600	672	591	6040	5750	6140	5815	8	Rubber Ring
750	835	731	6050	5750	6180	5820	8	Rubber Ring
900	995	869	6040	5750	6260	5900	8	Rubber Ring
1050	1228	1057	NA	NA	6270	5910	8	Rubber Ring
1050*	1216	1050	6160	6000	NA	NA	8	Rubber Ring
1200*	1370	1200	6160	6000	NA	NA	8	Rubber Ring
1500*	1686	1500	6160	6000	NA	NA	8	Rubber Ring
1600*	1794	1600	6160	6000	NA	NA	8	Rubber Ring
1800*	1982	1800	6160	6000	NA	NA	8	Rubber Ring
2000*	2170	2000	6160	6000	NA	NA	8	Rubber Ring
2500	2694	2500	5960	5800	NA	NA	2	Electro Fusion
3000	3214	3000	5660	5500	NA	NA	1.7	Electro Fusion
3500	3714	3500	5660	5500	NA	NA	1.1	Electro Fusion
4000	4214	4000	5660	5500	NA	NA	0.7	Electro Fusion

Overall and effective lengths may change without notice

Measurements are approximate and subject to change without notice

*Also Available with an electro-fusion joint (WA only)

From 1050-4000 different stiffness ratings can be manufactured (WA only)

*Measurements are in millimetres *Measurements are approximate

APPLICATIONS

SUBDIVISION STORM WATER MANAGEMENT

Enviropipes manufactures storm water pipe systems (Enviropipes Stormwater Pipes) in diameters from 100mm up to 4000mm which provide outstanding storm water management capacity as well as out performing other storm water systems. High Density Polyethylene (HDPE) pipes collect storm water runoff through a surface inlet and drain it to an appropriate outlet. Storm water systems can be small and simple, such as that used for a modest housing development, to complex systems used in metropolitan areas serving a combination of residential, commercial, and industrial developments.

SUB DRAINS

A sub-drain system is an underground network of piping used to remove water from areas that collect or retain surface water or groundwater. The network can be small, such as those used to drain a limited area, or large draining a sizable number of acres.

Surface water can be collected into the sub-drain system by installing a surface inlet or catch basin. Groundwater is collected by allowing water into the pipe through perforations. Both surface water and groundwater can be discharged to an appropriate outlet.

LNG, WASTE WATER TREATMENT PLANTS AND MINE SITES

Enviropipes Stormwater Pipes can be used for site drainage and underground water storage. The use of Enviropipes Stormwater Pipe is advantageous as the rubber ring jointed pipes require no further welding or couplings. Our pipe offers high resistance to abrasion and corrosion which is important when considering installing into aggressive soils.



ADVANTAGES

PIPE WEIGHT

The extremely low weight of Enviropipes Stormwater Pipes and EnviroSewer® pipes allows simpler and faster installation. Most cases no heavy machinery is necessary for the installation and handling of the pipes. Most of the handling can be done by an excavator on site or even by hand.

COST EFFECTIVE SOLUTIONS

Storm water and sewer applications demand high performance and minimised cost. Enviropipes Stormwater Pipes and EnviroSewer® pipe is a competitively priced solution compared to alternate systems. Installation costs of High Density Polyethylene (HDPE) systems are generally lower than other pipe materials, due to its light weight and jointing systems. Fast installation minimises traffic disruption and other nuisance factors associated with underground installations.



ADVANTAGES

LONG LIFE

HDPE (PE100) pipes have proven reliability across a range of applications of around 50 years. The Water Services Association of Australia (WSAA) Polyethylene Pipeline Code predicts a life in excess of 100 years before major rehabilitation is required.

INSTALLATION

The installation time is shorter than other materials as the standard pipe lengths are between 5.5 to 6 meters long. Fewer lifts mean unloading and loading the pipes into position saves even more time. Longer lengths can be shop fabricated on request.

CHEMICAL CORROSION RESISTANCE

Enviropipes Stormwater Pipes are manufactured from HDPE (PE100) material and have excellent resistance internally and externally to protect against aggressive soils, chemicals and corrosion.

EFFECTIVE ROUGHNESS

Due to its low roughness as shown in the graph below there is almost no accumulation on the pipe bottom, Enviropipes Stormwater Pipes and EnviroSewer® pipes have the ability to self purify. Low roughness has an important economic advantage as maintenance expenditure is kept to a minimum. Due to the low roughness the hydraulic properties are improved and smaller diameters are required compared to conventional pipe materials with the same flow rate. Enviropipes Stormwater Pipes and EnviroSewer® pipes convey flows up to 17% greater than concrete pipes, and up to 60% greater than corrugated steel pipes.



wall roughness

ADVANTAGES

ABRASION RESISTANCE



Polyethylene pipes are among the most abrasion resistant pipes in the world. This has been tested in the Darmstadt procedure and the results are shown in the diagram to the left and supports the quality of polyethylene pipes.

UV-RESISTANCE

Commonly most natural materials and other plastics are degraded by weathering effects, particularly by the combined impact of short-wave ultraviolet radiation in sunlight and atmospheric oxygen.

Black polyethylene pipes are permanently resistant to atmospheric corrosion and UV radiation, as the polyethylene used contains carbon black which acts as both a pigment and an ultra violet stabiliser. Thus the pipes can be used and stored outside without the pipe material being damaged.

RESISTANCE TO MICRO-ORGANISMS

Polyethylene is not nutrient media for bacteria, fungi and spores, so that the material is resistant to all forms of microbial attack as well as both sulphurous acid and sulphates.



JOINTING

The following step by step procedure is recommended when joining corrugated pipes.



STEP 1

Clean both the pipe socket and spigot, making sure they are free from any debris.



STEP 4

Apply joining lubricant.



STEP 2

Apply the rubber ring by stretching it over the spigot so that it rests between the first and second corrugations.



STEP 5

Apply an even joining force until the spigot end comes into contact with the inner wall of the socket (A timber glut and crowbar may be used if circumstances permit).



STEP 3

Ensure that the rubber ring is fitted by running your fingers around it.

Important information for rubber orientation and cutting of Enviropipes Corrugated pipe from 225-750mm (Please contact your nearest Enviropipes branch for cutting of all other sizes)

- During installation if the pipes need to be cut to special lengths make sure cuts are made to the centre of the valley only, also make sure to seal the airways when required before installing the last length of pipe (this applies to sizes between 225-750mm only). Contact your nearest Enviropipes branch for cutting of all other sizes.
- Install rubber in the correct orientation (as per below picture) in the last valley of the pipe and make sure surfaces are clean and lubricated with approved Enviropipes lubricant.
- Rubber notches should be installed in line with the airway of the pipe to avoid any leaks after compressing the rubber into the socket.



