



## ENVIROSTORM PIPE SYSTEM

PE Corrugated Stormwater pipe system  
AS/NZS 5065



JAN 2024

## ENVIROSTORM® 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.

EnviroStorm® 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.



# DIMENSIONS

## POLYETHYLENE (PE100) CORRUGATED PIPE SIZES

NOMINAL DIAMETER (DN)	OUTSIDE DIAMETER (mm)	INTERNAL DIAMETER (mm)	NOMINAL OVERALL LENGTH (mm)	LENGTH (SP/SO) EFFECTIVE LENGTH (mm)	STIFFNESS CLASS (SN)	JOINTING METHOD	PIPES PER PACK	PIPES PER 13MTR TRAILER**	PIPES PER EXTENDABLE TRAILER**
100	110	95	6	6	8	Rubber Ring	100	1000	1500
150	160	138	6	6	8	Rubber Ring	49	490	735
225	257	223	6.07	5.95	8	Rubber Ring	4	160	240
300	339	294	6.06	5.915	8	Rubber Ring	3	96	144
375	425	371	6.02	5.84	8	Rubber Ring	3	60	90
450	508	438	6.03	5.83	8	Rubber Ring	2	40	60
525	595	514	6.03	5.76	8	Rubber Ring	3	30	45
600	672	591	6.04	5.75	8	Rubber Ring	3	24	36
750	835	731	6.148	5.75	8	Rubber Ring	2	12	18
900	995	869	6.01	5.71	8	Rubber Ring	2	12	18
1050	1216	1050	6160	6000	8	Rubber Ring	1	8	12
1200	1370	1200	6160	6000	8	Rubber Ring	1	6	9
1500	1686	1500	6160	6000	8	Rubber Ring	1	4	6
1600	1794	1600	6160	6000	8	Rubber Ring	1	2	3
1800	1982	1800	6160	6000	4	Rubber Ring	1	2	3
2000	2170	2000	6160	6000	2	Rubber Ring	1	2	3
2500	2694	2500	5960	5800	2	Electro Fusion	1	2	3
3000	3214	3000	5660	5500	1.7	Electro Fusion	1	2	3
3500	3714	3500	5660	5500	1.1	Electro Fusion	1	2	3
4000	4214	4000	5660	5500	0.7	Electro Fusion	1	2	3

\*1050-2000mm EnviroCulvert® pipes can also be manufactured with an electro-fusion joint

\*Overall and effective lengths may change without notice

\*\*Quantities are approximate and may vary due to unforeseen circumstances

From 1050-4000 different stiffness ratings can be manufactured



# APPLICATIONS

## SUBDIVISION STORM WATER MANAGEMENT

Enviropipes manufactures storm water pipe systems (EnviroStorm®) 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.

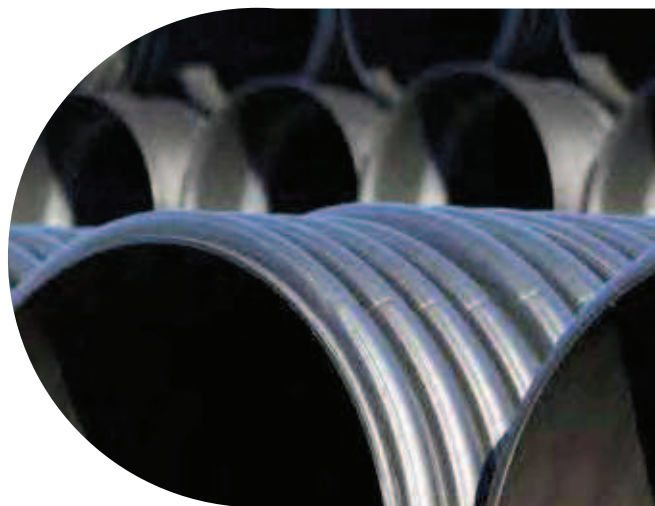
## SUB DRAINS

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

EnviroStorm® pipe can be used for site drainage and underground water storage. The use of EnviroStorm® 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.



\*Measurements are in millimetres \*Measurements are approximate



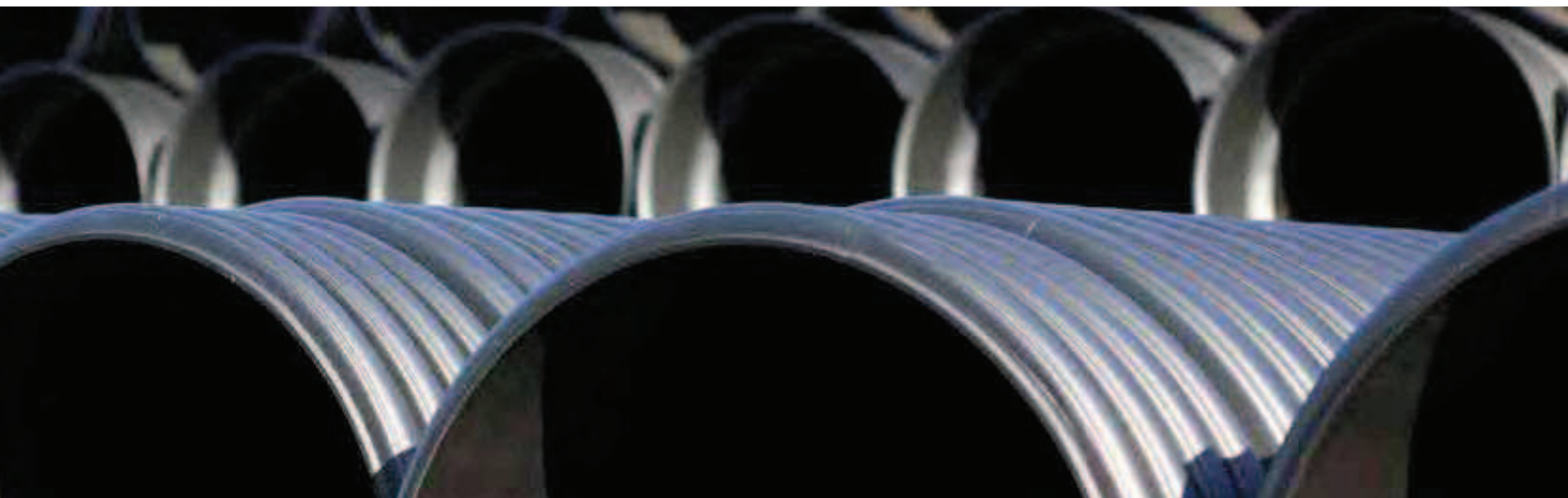
# ADVANTAGES

## PIPE WEIGHT

The extremely low weight of EnviroStorm® 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. EnviroStorm® 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

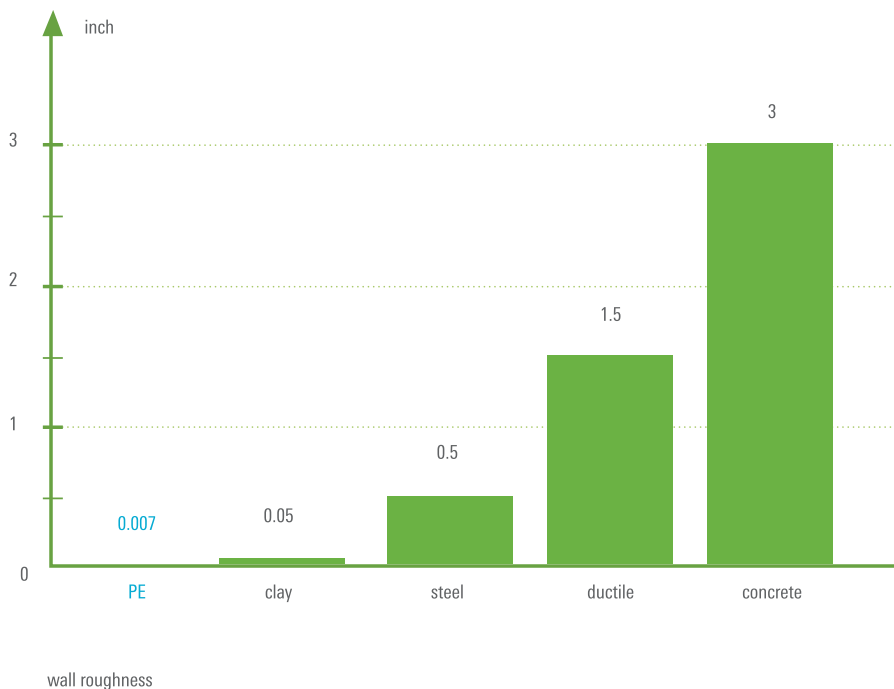
The installation time is shorter than other materials as the standard pipe lengths are between 5.5 to 6 meters long. Fewer lifts mean unloading and loading the pipes into position saves even more time. Longer lengths can be shop fabricated on request.

## CHEMICAL CORROSION RESISTANCE

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

## EFFECTIVE ROUGHNESS

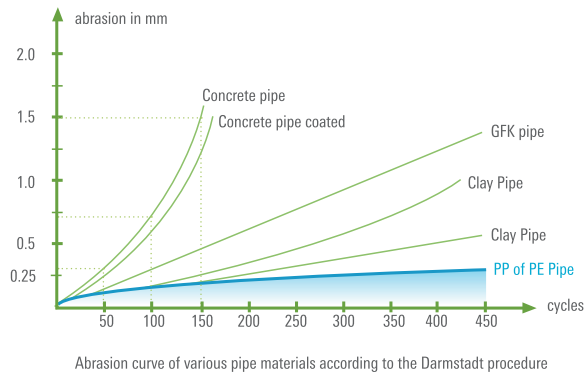
Due to its low roughness as shown in the graph below there is almost no accumulation on the pipe bottom, EnviroStorm® and EnviroSewer® pipes have the ability to self purify. Low roughness has an important economic advantage as maintenance expenditure is kept to a minimum. Due to the low roughness the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





# 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 2

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



## STEP 3

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



## STEP 4

Apply joining lubricant.



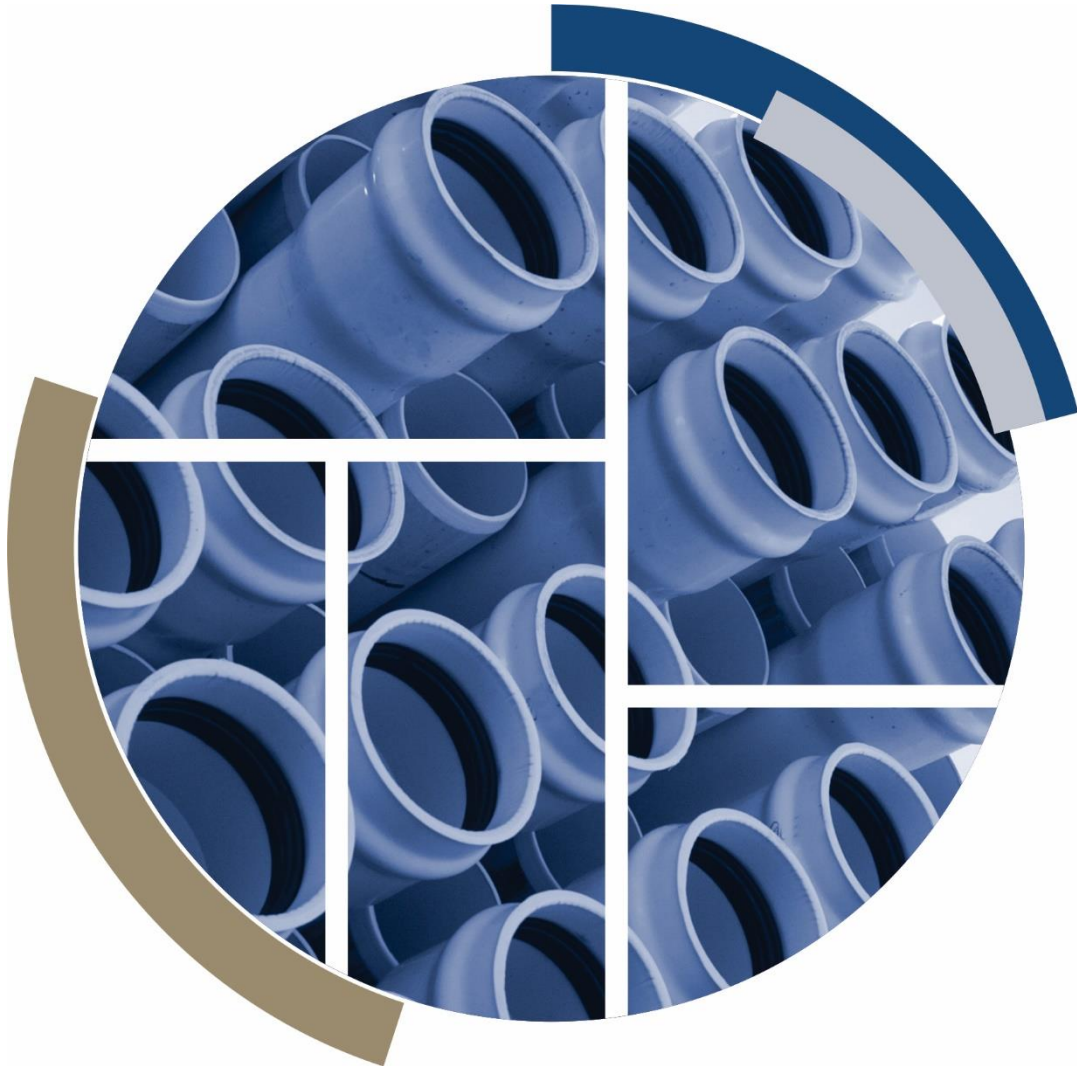
## STEP 5

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).





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