

GEOSYNTHETICS

# Geopipes

The Engineers' solution to all your  
drainage problems



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# Geopipes

## The Engineers' solution to your drainage problems!

Pipes have been used successfully for many years in areas where it is necessary to channel the flow of water out of sub-soil drainage swiftly and effectively.

Why use specialised pipe to convey water? Natural materials, for the most part, restrict the speed of water flow and can easily become blocked. Drainage pipes are usually adapted versions of solid pipes and generally have an inadequate infiltration capacity in high flow areas which can lead to water back up.

### Geopipes

Geopipes are not just an engineer's pipe dream. They have been specifically designed and manufactured to be a practical solution for all drainage problems. The 70% open area of the Geopipe allows for a significant increase in the infiltration rate of water into the pipe.

**No other drainage pipes have an infiltration rate equivalent to Geopipes.**

**Geopipes easily accommodate high localised flows** and as a result this high infiltration capacity allows for smaller diameter Geopipes to be used.

Geopipes can with the correct bedding tolerate extremely high stresses equivalent to 160 m of overburden before buckling or deformation occurs.

*Refer to Kaytech's Geopipe Bedding Document.*



### Fin Drains

Engineers are increasingly finding fin drains like Flo-Drain more effective when it comes to designing a drainage system. However, some engineers have found that traditional drainage pipes make the system cumbersome.

Geopipes are ideally suited to fin drains like Flo-Drain. For the engineer there is the added benefit of reducing the cost of the system as the high infiltration capacity of Geopipes reduces the need for the pipe to be totally surrounded by the Flownet core.

### Couplings

Geopipes are supplied with one standard UPVC coupling per length. Geopipes are easily cut to shorter lengths for use in confined areas.





## Installation & Handling

Time is money. A great deal of time is wasted by the care needed when loading and unloading drainage pipes.

**Geopipes are unbreakable, light and flexible and much easier to handle than other pipes.** This results in significant cost savings when loading, transporting and offloading. Installation is much easier when using Geopipes.

## Flexibility

Without adequate care, some drainage pipes could fracture or be broken during installation. With others, brittleness is an additional problem particularly during the winter months.

**Geopipes are highly flexible.** Under most conditions Geopipes will deform and regain shape without breaking, and will not become brittle even at very low temperatures. In this way damage to the pipe during loading and installation is practically eliminated.

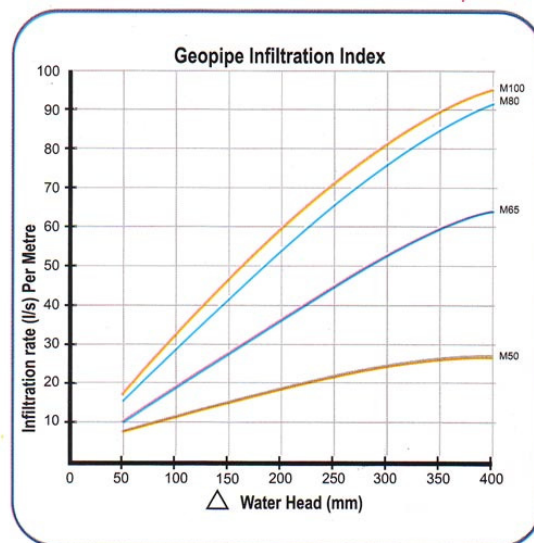
## Chemical Resistance

When unusually adverse conditions are encountered, for example effluent waste, pipes resistant to a wide variety of chemicals are essential.

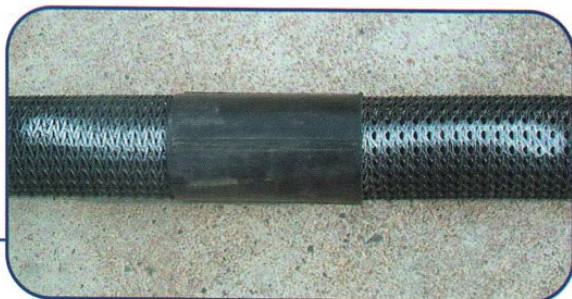
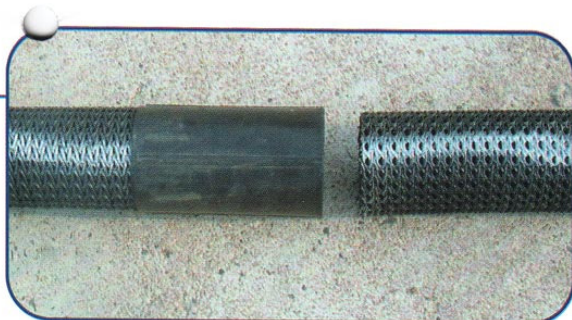
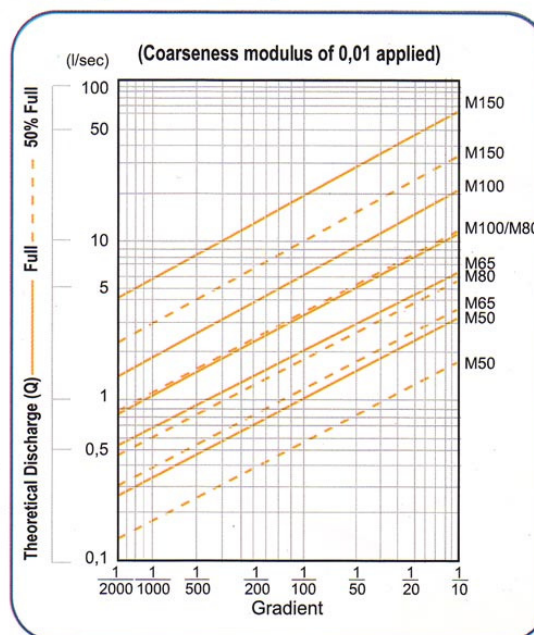
**Geopipes resist chemical attack** as they are manufactured from HDPE (High Density Polyethylene), one of the most chemically resistant polymers available. Geopipes also do not degrade or promote the growth of micro organisms.

## Results of laboratory tests to determine Geopipe efficiency

### Infiltration rates



### Discharge Rate Nomogram



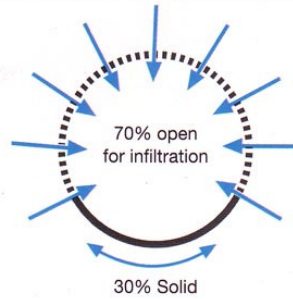


## Geopipe Sizes

	ID(mm)	OD(mm)
<b>M150</b>	150	160
<b>M100</b>	100	110
<b>M80</b>	80	90
<b>M65</b>	65	75
<b>M50</b>	50	60

Standard Length - 6m

## Cross Section



## Some Drain Configurations

