

Aquadyne™

a product of econoplas ltd

① INFOSHEET



Exceptional Sports Pitch Drainage with Major Environmental Benefits



“In comparison to the control samples the presence of Aquadyne significantly increases the transport of water”*

(* PSD Agronomy report August 2008)





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Exceptional Sports Pitch Drainage with Major Environmental Benefits

Aquadyne is a unique, highly efficient and environmentally friendly drainage system used to construct, refurbish and renovate natural turf sports pitches.

Manufactured from 100% post use recycled materials and using low energy technology; Aquadyne sports pitch drainage systems help to combat the cause and effect of climate change. Using Aquadyne makes direct CO₂ emissions savings.

Construction, refurbishment or renovation of any sports pitch area large or small.

With Aquadyne drainage, new field construction or existing site refurbishment is fast, effective, low impact and low cost (up to 20% cheaper than an equivalent conventional drainage system).

Utilising fast, clean and precise trenching equipment sports pitches can be fully refurbished and quickly back in use.

Aquadyne combats the major problems of conventional drainage:

- Settlement (drop)
- Compaction
- Infiltration (clogging)
- Migration
- Drying out

Aquadyne drainage system benefits:

- Reduced overall cost
- Fast installation
- Rapid reinstatement of surface
- Reduced trench 'drop' and 'topping up' required
- Up to 40% less material transported to site
- Up to 50% reduced excavation
- Up to 80% less materials transported to and from site in total
- Is not damaged by trafficking
- Reduced traffic and less damage during installation

Proven, long lasting performance:

- The long term performance of Aquadyne is proven in a wide range of installations and in laboratory conditions.
- Aquadyne reduces long term maintenance cost.

Environmental benefits:

- Aquadyne sports pitch systems have an immediate and direct environmental benefit, typically saving over 40 tons of CO₂ (carbon dioxide) emissions per pitch.



Case Studies



Football Field Drainage/ Existing pitch refurbishment
Winter rainfall conditions



Rugby Pitch Drainage/ Existing pitch refurbishment
Winter conditions

Testimonials

David Fountain: Landscape and architectural designer

"I specified Aquadyne on a project which included three new build sports pitches and a recreation area. The speed and efficiency of the installation was very impressive. The quality of the site has been without fault and the performance of the drainage can be clearly seen at the outlet ponds. In my experience the Aquadyne system has been excellent; it has proven to be very efficient, cost effective and is an environmentally friendly option (which is now an important consideration to all my clients)."

John Coates: Director of Special Projects, Countryside Properties PLC

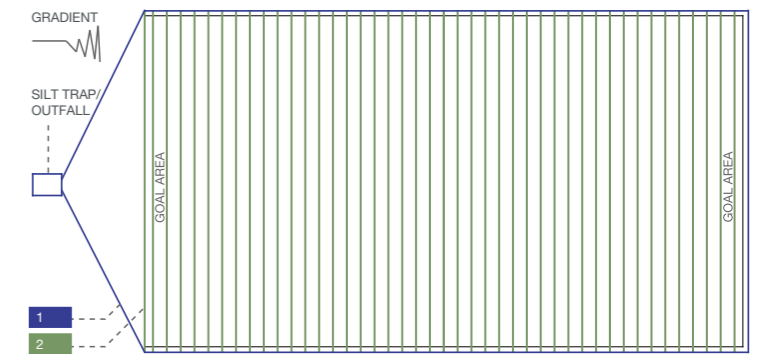
"When we first placed the order for the Aquadyne installation (October 2006) we were skeptical of the claims that a suitable grass sward would be quickly established and the soccer pitches would be available by the following spring/summer. The site has proved to be useable as soon as the grass established and we have had no issues with maintenance or subsidence of drainage trenches (which is our previous experience with conventional sand slit and collector drain systems). Maintenance really has been confined to grass cutting and weed control."

Yarnbury RFC (Leeds)

"Everybody knew how bad our pitches had become because of the poor drainage and this was having a real impact on the juniors and the seniors games at our club.

We can now use the pitches throughout winter; which has not been possible for many years... In February thousands of litres of water were draining from the pitch daily. The fact that we've used the most environmentally friendly system is an added bonus."

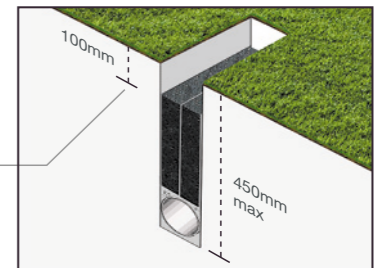
Typical drainage installation design



[Lateral drains should be installed at between 2m – 5m centres depending on the soil type and site conditions]

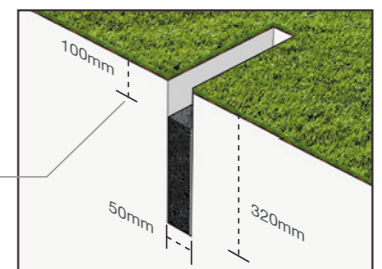
1 Aquadyne double vertical trench LAP JOINT

- Aquadyne panel size/ 220mm (D) x 45mm (W) x 1000mm (L)
- Recommended back fill depth 100mm
- Specified free draining backfill sand, sand/soil blend or topsoil
- Gravel is not required



2 Aquadyne single vertical trench BUTT JOINT

- Aquadyne panel size/ 220mm (D) x 45mm (W) x 1000mm (L)
- Recommended back fill depth 100mm
- Specified free draining backfill sand, sand/soil blend or topsoil
- Gravel is not required





**European Turfgrass Laboratories (ETL)
Testing of Aquadyne Drainage**

Testing of Flow Rate and Percolation in Sports Turf Applications
Test Methodology based on ASTM F1815-06 : Hydraulic Conductivity

SYNOPSIS OF RESULTS

Testing criteria:

Measurement of drainage flow using Aquadyne material in conjunction with medium coarse and medium fine sands at 30cm, 15cm and 10cm backfill depths.

Control measurements:

Material	Average Flow Rate mm/hr
Aquadyne material	21,000 mm/hr
Medium Coarse Sand	2,089 mm/hr
Medium Fine Sand	1,222 mm/hr

Drainage improvement when Aquadyne is used:

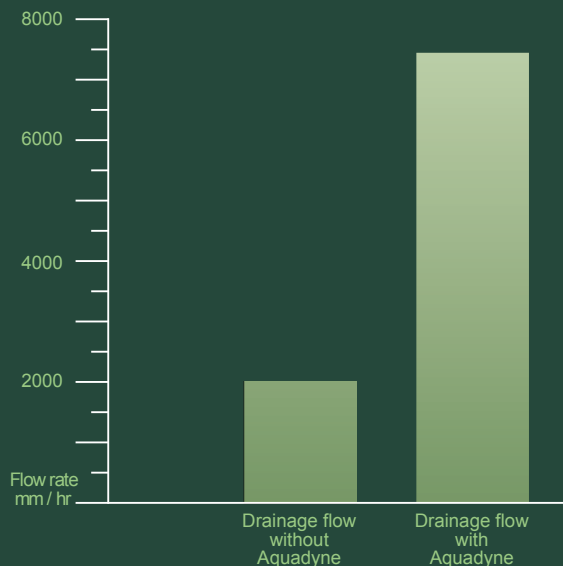
When Aquadyne is introduced as a sports turf drainage medium the drainage percolation rates were recorded to increase by up to 5300mm/hr (355%).

Conclusion:

In comparison to the control samples the presence of Aquadyne significantly increases the transport of water through the sand medium(s)*

(* PSD Agronomy report August 2008)

Increase in sports pitch drainage performance when Aquadyne is installed:



ISO 9001:2008
Drainage material for use in sports turf, modular, civil engineering, construction and public access applications.