

Environmental

LESS FUSS,  
LESS TIME,  
LESS WASTE!

# Ezy-Drain

Revolutionary Packaged Drainage Field



*Sustainable, Reliable, Affordable*



**Kingspan**®

# Ezy-Drain

Revolutionary Packaged Drainage Field

While great advances have been made in wastewater technology, land drainage remains reliant on traditional techniques.

Now Kingspan Environmental can offer the **Ezy-Drain** system, a revolutionary new product that redefines the method of dispersing water into soil.

Utilising recycled synthetics packed around sectional tubes, the **Ezy-Drain** design offers a packaged solution to avoid the drawbacks of using loose quarried aggregates. The resultant benefits are an extremely lightweight system that can be rapidly installed without the need for specialist skills.

## Applications

**Treatment Plants and Septic Tanks:** **Ezy-Drain** replaces the perforated pipework of a 'herring-bone' drainage field. **Ezy-Drain's** storage and flow characteristics typically achieve 35% more surface area than natural aggregates, resulting in enhanced water treatment capabilities and a reduction in long term clogging.

**Effluent Drainage:** **Ezy-Drain** may replace traditional 'carrier' drainage from a treatment plant to discharge point.

**Seasonal Soakaways:** **Ezy-Drain** is ideal to install as a 'seasonal soakaway' flowing from a treatment plant. A seasonal soakaway allows infiltration of treated effluent where ground conditions permit or transfers effluent to an alternative discharge point when ground conditions are unfavourable.

## Benefits

- Speed of installation – up to 4 times faster than traditional methods.
- Lightweight increases handling capability and reduces Health & Safety hazards
- Single manpower installation – less labour and plant intensive

## Soil Porosity Test Data

Time taken to fall 150mm (mins)	Equivalent value of Vp in sec/mm	Overall length of drain run required (m)					
		2800 litres (4 persons)	3800 litres (10 persons)	4600 litres (14 persons)	6000 litres (22 persons)	7500 litres (30 persons)	9000 litres (38 persons)
20	8	18	44	62	98	133	169
30	12	27	67	93	147	200	253
40	16	36	89	124	196	267	338
60	24	53	133	187	293	400	507
120	48	107	267	373	587	800	1013
180	72	160	400	560	880	1200	1520

The table indicates typical meterage for domestic septic tank applications, assuming a trench width of 450mm. Approximately 20% less drainage is required for Sewage Treatment Plants as treated effluent is of a higher standard. For other applications and further information, please consult Kingspan.



Trench excavated to site specific requirements arisings kept for re-use.



2m Ezy-Drain sections are lightweight and easily handled.

- Minimises site waste and disposal costs
- Flexibility removes need for boxes or chambers
- Ideal for sites with restricted access
- Higher water dispersion rate than traditional methods
- Reduced site impact - minimal reinstatement and clean up

## Soil Porosity

To establish the overall length of a drain run required, a soil porosity test may be necessary. The following procedure should be adopted:

- Excavate a hole 300mm square by 300mm deep below the proposed invert level of the land drain.
- Fill hole with water to a depth of 300mm and allow to drain away overnight.
- Refill to a depth of 300mm and observe the time taken to drain from 75% full to 25% full level (i.e. a depth of 150mm). Divide this time by 150mm. The answer gives the average time in seconds (Vp) required for the water to drop 1mm.

Repeat this exercise two more times with at least two trial holes. Calculate the average time.

By reference to the table below, the length of drain run required for various capacity tanks may be established.

Drainage field disposal should only be used on test values (Vp) between 12 and 100. Where a Vp value falls outside these limits, our technical team can advise.



Ezy-Drain sections are simply joined together using standard 110mm fittings and junctions. Joints may be protected with the optional polystyrene collars or simply backfilled with as-dug material.



Assembled Ezy-Drain system is then rolled into the dug trench.



Arisings used to backfill to top of trench.

## Design

The **Ezy-Drain** comprises of sections of perforated plastic pipe, surrounded by a synthetic aggregate, wrapped in polyethylene netting. Each 2-metre section is simply joined together by the use of standard 110mm fittings and junctions, protected by an optional preformed collar.

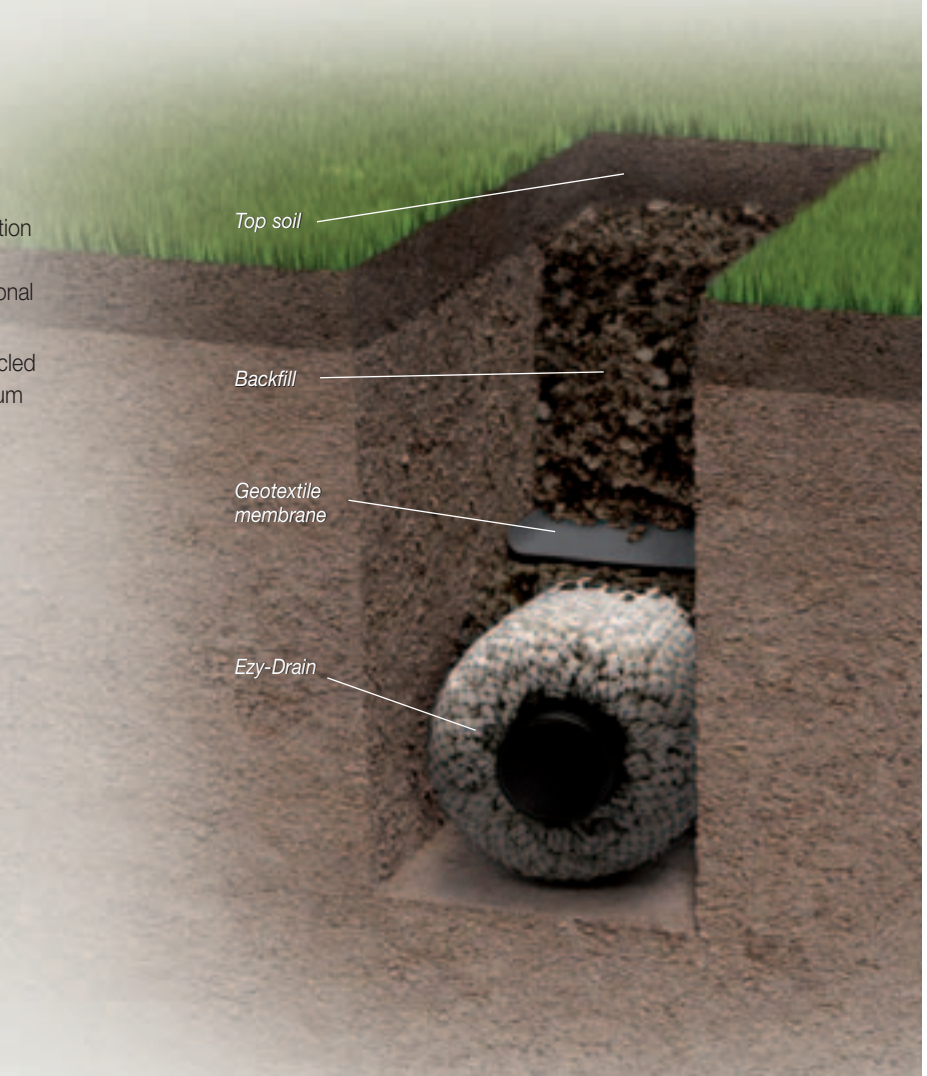
The synthetic aggregate is manufactured from recycled expanded polystyrene, engineered to deliver optimum performance while consistently retaining its form.

**Ezy-Drain** is designed to be installed under a geotextile membrane.\*

## Delivery & Installation

**Ezy-Drain** is entirely prefabricated and delivered in 2-metre sections directly to site. Installation can be performed by a single person without the need for aggregate, with trenches only requiring backfilling prior to immediate operation.

Product	Ref.	Description
Ezy-Drain	EZD-FD1233	300mm x 2m perforated pipe
Ezy-Drain Collar	EZD-FD1206	Optional 300mm EPS collar surround



\* Not part of our supply, but available from your pipeworks stockist.

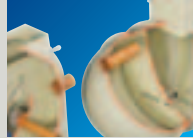
# Kingspan Environmental Solutions



Commercial Sewage Treatment Plants



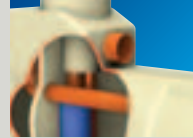
Large Capacity Pumping Stations



Stormwater Attenuation Systems



Residential & Commercial Rainwater Harvesting



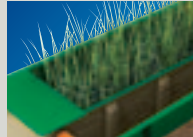
Oil/Water Separators



Domestic Sewage Treatment Plants



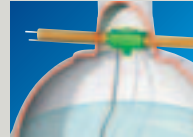
Packaged Pump Systems



Reed Beds



Domestic Rainwater Harvesting



Garden Watering Systems



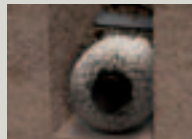
Septic Tanks



Below Ground Storage Tanks



Grease & Silt Traps



Packaged Drainage Systems

## Kingspan Environmental Accredited Installers

Strategically located throughout the UK and Ireland, Kingspan Environmental Accredited Installers are appointed following a selection process which assesses their installation expertise, reputation and financial status.

These performance criteria, together with their design skills and knowledge of Kingspan Environmental products are also reviewed to ensure that the highest levels of professionalism are maintained.



## Other Applications

As specialists in wastewater we are able to provide solutions for many different applications. Please contact us for further information.

## Kingspan Environmental Service

Who better to look after your wastewater and drainage products than the people who designed and built it?

Kingspan Environmental have a dedicated service division providing maintenance for wastewater and rainwater products.

Factory trained engineers are available for site visits as part of a planned maintenance contract or on a one-off call out basis.

To find out more about protecting your investment and ensuring peace of mind, contact us on **0845 355 0555** or visit us online at [www.kingspanenvservice.com](http://www.kingspanenvservice.com)



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*In keeping with Company policy of continuing research and development and in order to offer our clients the most advanced products, Kingspan Environmental reserves the right to alter specifications and drawings without prior notice.*

