

Puraflo

Wastewater Treatment System for the Residential Market



TRICEL
ENVIRONMENTAL

The Environmental Advantages of Puraflo

Puraflo is a 100% natural system that draws on the remarkable filtration properties of peat and uses no chemical additives in achieving exceptional results.

Puraflo's unique bio-fibrous peat filter provides unsurpassed treatment of domestic water, reducing the risk of pollution whilst providing protection for homes, the environment and public health.

Low carbon footprint.

99.9% reduction in total coliforms.

Elimination of pathogenic bacteria.

Micro-biological treatment of wastewater.

Phosphorous reduction <2mg/litre*.

Existing septic tank system can be easily upgraded to a high performance treatment plant by adding Puraflo modules.

The media covering the effluent distribution grid in the Puraflo module has odour absorption properties therefore suppressing sewage odours.

*optional extra if required

The Puraflo Advantages for You

Puraflo has minimal power requirements, costs typically averaging approximately €10 per annum.

The modular design of Puraflo can be installed above or at ground level. Puraflo units do not require concrete backfill and can utilise the existing excavated material as backfill.

The Puraflo bio-filters require no de-sludging or backwashing. Provided the septic tank and sump receive regular de-sludging, the system will continue to operate efficiently.

Intermittent or seasonal flows have no detrimental effect on treatment levels, making Puraflo ideally suited where fluctuating loads are expected.

The use of a septic tank means fewer de-sludging operations and reduced operational costs.

The only mechanical device in the system is the pump, which works on an intermittent basis, minimising the possibility of mechanical problems.

To further enhance the treated effluent quality with a tertiary treatment option the treated effluent can be passed through an additional Puraflo module capable of achieving a 5:5mg/l BOD: SS standard.

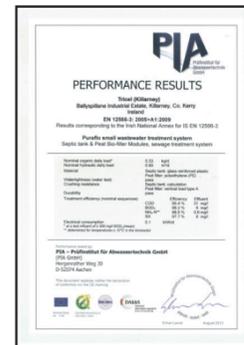
Simple Installation, Minimum Maintenance

While the Puraflo Residential sewage treatment system is made up of a number of separate components, we understand the pressures to minimise installation costs while maintaining quality. Therefore we design and manufacture the system to provide a packaged solution with ease of installation and reduced maintenance in mind.

Complementary Products for the Puraflo Residential System

- Plant Alarm System
- High Level Alarm(s)
- Sample chambers
- Weatherproof GRP Enclosures & Kiosks
- Nutrient removal for SSI (Special Scientific Interest) areas
- Tertiary treatment for enhanced wastewater treatment

Your Tricel partner



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no obligation
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Expert customer
support



TRICEL
GENERATIONS OF INNOVATION

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In accordance with Tricel's normal policy of product development these specifications are subject to change without notice.

The Puraflo Residential System At Work

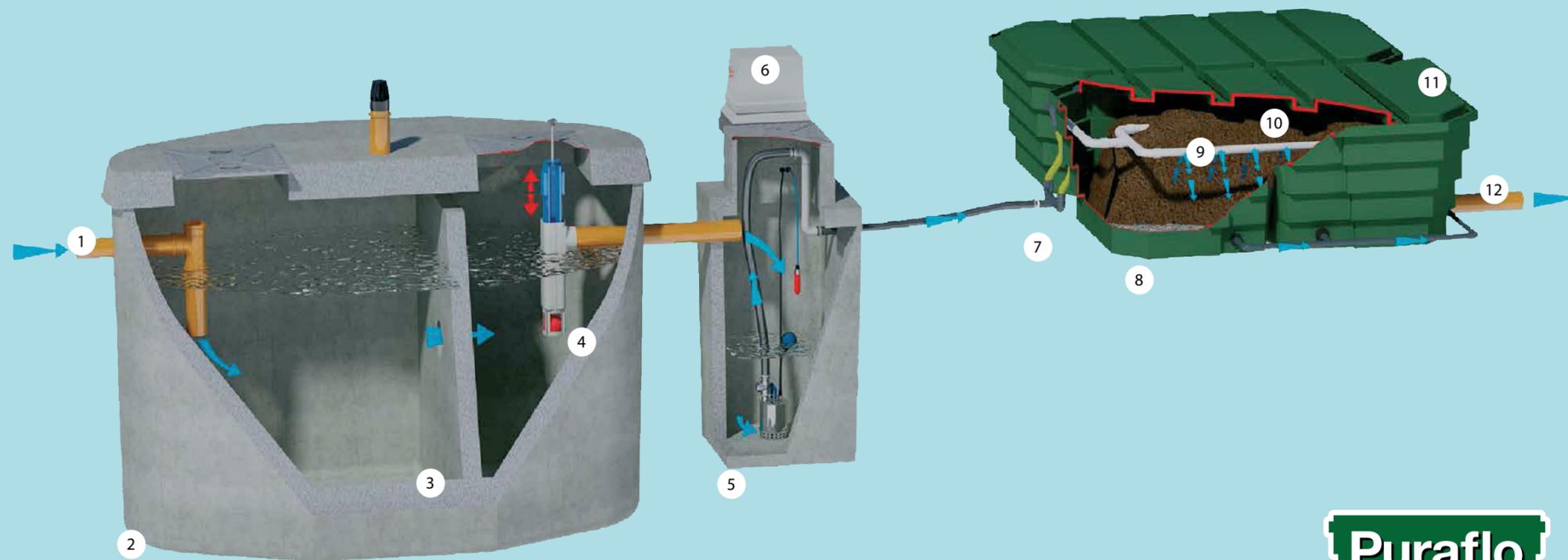
The Puraflo System is an advanced sustainable technology for the treatment of Wastewater in domestic homes.

Stage One: Primary Settlement – Physical Treatment

1. The wastewater from the house flows into the existing septic tank
2. Initial settlement occurs
3. The gross solids sink to form a sludge layer at bottom of the tank
4. The liquid effluent flows by gravity into the pump chamber

Stage Two: Puraflo Bio-filtration – Secondary Treatment

5. The liquid effluent is pumped into the Puraflo modules.
6. A pipework system at the top level in the modules evenly distributes the effluent onto a naturally occurring filter media.
7. A combination of biological chemical and physical processes treat the effluent as it filters through the media in the modules.
8. The treated effluent emerges from the modules through the outlet pipework for an approved disposal method.



The illustration above is a typical Puraflo System installation



Diagram Index

Stage One

1. Inlet pipe
2. Septic Tank
3. Baffle wall
4. Effluent filter
5. Pump chamber
6. Control panel

Stage Two

7. Inlet pipe
8. Puraflo module
9. Distribution pipework
10. Biofibrous peat
11. Sample chamber
12. Outlet pipe

Sewage Treatment Simplified

Sewage Treatment: Combination of physical and biological processes which breakdown the organic and inorganic sewage content which cause pollution to receiving waters.

Receiving Waters: All groundwaters and watercourses such as streams and rivers.

Population Equivalent (PE): A measure of the number of people the treatment plant serves.

Media: Bio-fibrous peat.

Sludge: The solids that settle to the bottom of the tank chambers.

BOD: Biological Oxygen Demand measured in milligrams per litre (mg/l) is a relative measure of how polluting the sewage is.

SS: Suspended Solids measured in milligrams per litre (mg/l) includes all suspended matter both organic and inorganic.

Coliform bacteria: A commonly used bacterial indicator of sanitary quality of foods and water.

Pathogenic Bacteria: Pathogenic bacteria such as Streptococcus are bacteria which cause disease in humans and animals.

The Puraflo Residential System has undergone a rigorous performance testing regime to achieve the highest results required. The tables alongside show the sizes and the wastewater treatment capability of Puraflo.

If you have any specific requirements, please contact the Tricel sales team who will be able to assist you with your enquiry.

Treated Wastewater Quality

pH (pH units)	5-8
BOD (mg/l)	<15
SS (mg/l)	<15
NH ₂ -N (mg/l)	< 5
Nitrate - N (mg/l)	20
Total Coliforms elimination	>99.9%
Faecal Coliforms elimination	>99.9%
*Pathogenic Bacteria	Absent

*Including Salmonella spp, Shigella spp, Sulphide reducing Clostridia, Staphylococcus and Psudomonas aeruginosa.

Puraflo Module Dimensions

Length	2,150 mm
Height	760 mm
Width	1,400 mm