

PACKAGED FILTER SYSTEM

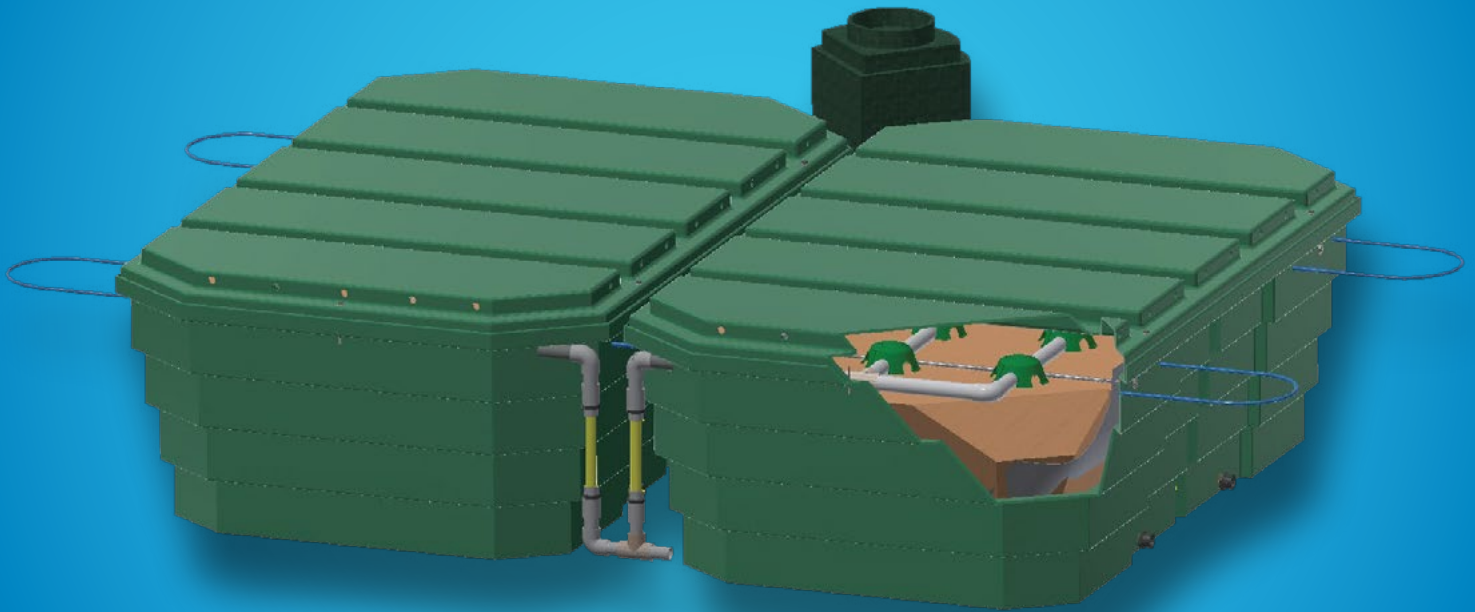
For Secondary and Tertiary Treatment

Tricel® Puraflo

Next generation with coconut fibre
For Single Dwellings & Small Communities

Innovative design for superior performance

UK & IRELAND



Puraflo modules

The Puraflo modules can be used for both Secondary Treatment (following a septic tank) and Tertiary Treatment (following a sewage treatment plant).

Stage One:

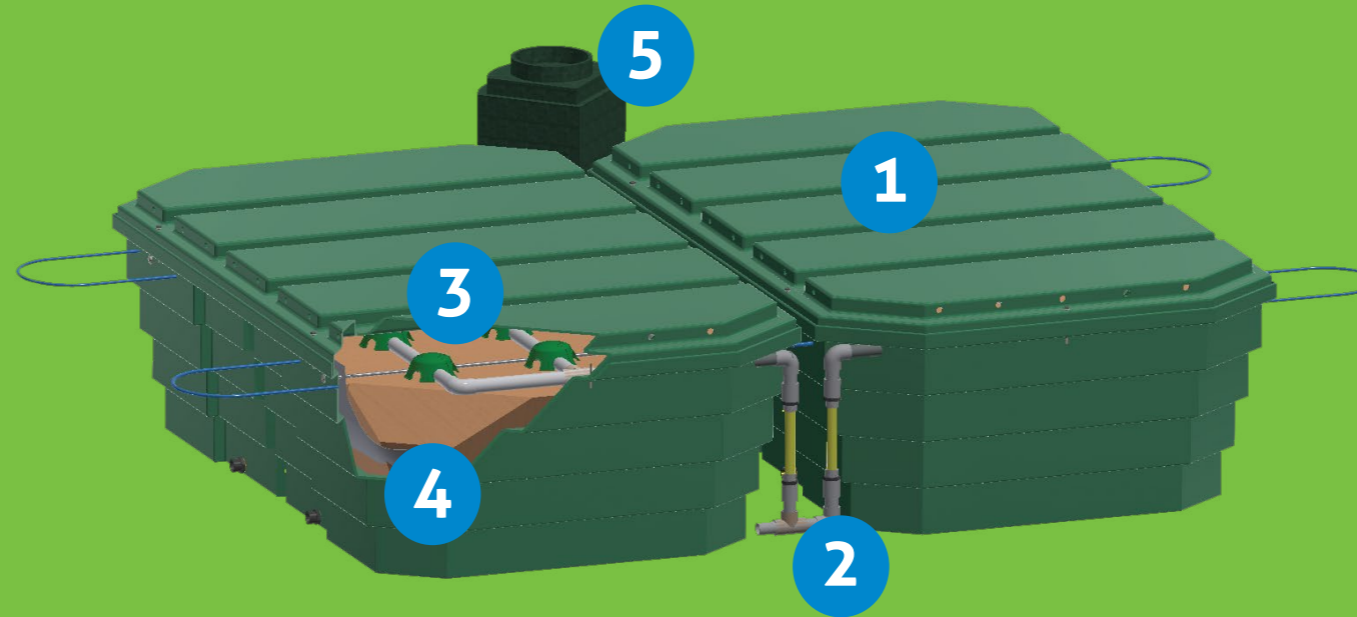
Puraflo can receive either primary or secondary treated effluent, based on what precedes it. In other words, there must first be either a septic tank or sewage treatment plant.

Stage Two:

Effluent will be intermittently pushed out of the facility using submersible pumps. Puraflo's submersible pump is critical to the operation. This pump will deliver effluent to the top of the modules, where a specially designed pipework system will ensure the effluent is distributed evenly and uniformly onto natural filter media. The effluent filters through the media through a combination of biological, chemical, and physical processes. In the final step, outgoing pipes transport the treated effluent from the modules to a disposal facility.

DIAGRAM INDEX

1. Puraflo module
2. Inlet pipe
3. Distribution pipework
4. Coconut fibre
5. Sample chamber



The environmental advantages of Puraflo

- Puraflo is a 100% natural system that draws on the remarkable filtration properties of coconut fibre and uses no chemical additives in achieving exceptional results.
- Puraflo's unique coconut fibre filter provides unsurpassed treatment of domestic water, reducing the risk of pollution whilst providing protection for homes, the environment and public health.
- Highly effective tertiary treatment when installed after a sewage treatment plant.
- Low carbon footprint.
- Micro-biological treatment of wastewater.
- 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.



The Puraflo advantages for you

- For a typical small unit Puraflo system the minimal power consumption would be 25KWh per annum. This is equivalent to the cost of operating a 13W LED light bulb used in a bedroom.
- 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 require no de-sludging or backwashing. Provided the tank and sump receive regular de-sludging, the system will continue to operate efficiently.
- The Puraflo system is an ideal solution for continuous or fluctuating load situations making it ideal for either main or holiday residence applications.
- The only mechanical device in the system is the pump, which works on an intermittent basis, which minimises potential mechanical problems over the life of the system.

The Puraflo system has undergone a rigorous performance testing regime to achieve the highest results required. The tables below show the sizes and the wastewater treatment capability of a Puraflo. If you have any specific requirements, please contact the Tricel® sales team who will be able to assist you with your enquiry.

Secondary treatment performance

ESSENTIAL CHARACTERISTICS	PERFORMANCE
Nominal Organic Design Load	0.42 kg BODs/d
Nominal Hydraulic Daily Design Load	1.20m ³ /d
COD	93.4% 54mg/l
BOD5	96.9% 11mg/l
SS	97.7% 8mg/l
NH ₄ *:	85.5% 5.6mg/l
Electrical Power Consumption	0.1kWh/d
Number of desludging	0

* determined at temperatures of ≥ 12°

Puraflo module dimensions

Length	2,150mm
Height	760mm
Width	1,400mm
Weight (one Puraflo module)	300kg

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: Coconut fibre.

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.

Simple installation, minimum maintenance

While the Puraflo 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

- High Level Alarm(s)
- Sample Chambers
- Weatherproof GRP Enclosures & Kiosks

Tricel Group

Tricel is a world recognised global provider of **high-performance solutions**. Today, the company operates across multiple industries such as **Environmental, Construction, Water and Distribution**, including both composite materials and lubricants.

We occupy a unique position in the field of reinforced plastics, combining the technical expertise of **over 50 years in the press-moulding and composites industry**. Tricel is proud of being one of the largest manufacturers of wastewater treatment plants in Europe, and are regarded by regulators as the standard setters within the industry.

Tricel are **experts in Sheet Moulding Compound (SMC)** processes and produce the only wastewater treatment plant in Europe constructed from this material. This process gives the highest strength to thickness ratio of any tank on the market, and has no risk of corrosion over time.

Our company offers industry **leading innovative solutions** that our customers can trust, and with operations in 17 locations across Europe we supply a comprehensive range of products to **over 50 countries worldwide**.



Membership of governing bodies on wastewater treatment



Tricel wastewater treatment plants are fully tested and accredited to **European standards for CE certification**.

PIA (Prüfinstitut für Abwassertechnik GmbH) are the leading Test Institute in Europe for wastewater technology.

Tricel wastewater treatment plants meet with **EN12566-3** requirements which test both the quality of the components as well as the overall performance of the plant.



British Water is the leading association representing suppliers, manufacturers, contractors, consultants and others in the UK water industry supply chain.



The **Irish Water Treatment Association (IWTA)** is the national association for the treatment, conservation, recycling and reuse of water and wastewater.



The **Irish Onsite Wastewater Association (IOWA)** formed in 2007 with the goal of improving the standard of professionalism in the on-site treatment of wastewater in Ireland.



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