Hidro Water

QUIMHIDRO

CristalWater

IFTS LABS

99,64% FILTRATION PERFORMANCE

TESTED

MAXIMUM ENERGY SAVING

IFTS TESTED

Hi-Tech Glass Filter Media

With Anti-Compaction Technology®

ifts

Biofilm Absence ACCREDITED

ES026775-A-CPI BUREAU VERITAS Certification

ES026775-CPI BUREAU VERITAS Certification

bioexam

Labor für Lebensmittel - Heilmittel

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ABOUT US

Hidro-Water, S.L.U. is one of the main Spanish leading companies in the manufacture and distribution of water treatment equipment, which divides its activity in three different areas: Residential Division, Industrial Division and Pool Division.

Our organization is aimed at meeting the needs of our customers, offering them effective and innovative solutions in the field of water treatment, both domestic and industrial.

Since it was created in 1996, the company has always maintained a leading position as a result of a continuous effort in R & D, a highly qualified team and the knowledge acquired over many years of work experience.

WE PROVIDE

The cleanest, softest and safest water.

WE LISTEN

To our clients to deliver innovative products and experiences that make a real difference in improving their lives.

WE TRANSFORM

Water into the best tasting, most convenient and sustainable drinking water any way you want.

WE PROVIDE

An exceptional service that make us easy to do business with.

WE STRIVE

For sustainability in every development process of our equipments.

WE FOSTER

The best people.

OUR STRENGTHS

QUALITY

We understand that the loyalty of our customers must be based on the quality of our products, services and processes.

We are always in a process of continuous improvement, which allows us year after year to obtain the ISO 9001 certificate, thus ratifying our commitment to quality.

SERVICE

A 6.000m2 facility and a permanent stock, allows immediate delivery, providing a quality and efficient service to our customers. The company has an extensive commercial network which, together with its technical service team, both serve throughout the national territory, providing coverage and a good after-sales service to all our customers.

LEADERSHIP

Experience, knowledge and adaptability to market changes are the values that allow Hidro-Water, S.L.U. maintain its leadership position.

R + D

Our R & D department is focused on the development of new and intelligent solutions, always using the most advanced technologies, in order to offer our customers the most appropriate products in an increasingly demanding market.

HIGH QUALIFIED TEAM

In Hidro-Water, S.L.U. we know that people are our best asset. Therefore, we enhance professional development and integration of each member of the company. We foster teamwork and a positive environment which allows us to obtain the best results.

COSTUMER COMMITMENT

Our commitment is based on the continuous improvement of our products guaranteeing our customers the best quality, an optimal service and the satisfaction of their expectations. Therefore, we offer our customers a wide range of products with certifications according to current legislation.

¿WHAT IS QUIMHIDRO® CristalWater ?

It is the latest generation filter media based on flat virgin glass, designed exclusively for water filtration.

By simply replacing your existing media with QUIMHIDRO® CristalWater you will maximise the performance of any standard filter.

WHAT ARE THE ADVANTAGES?

You will gain immediate advantages in the following areas:

PERFORMANCE

EFFICIENCY

HYGIENE & BIOSECURITY

DURABILITY

SECURITY

Hidro Water

QUIMHIDRO®

ADVANTAGES

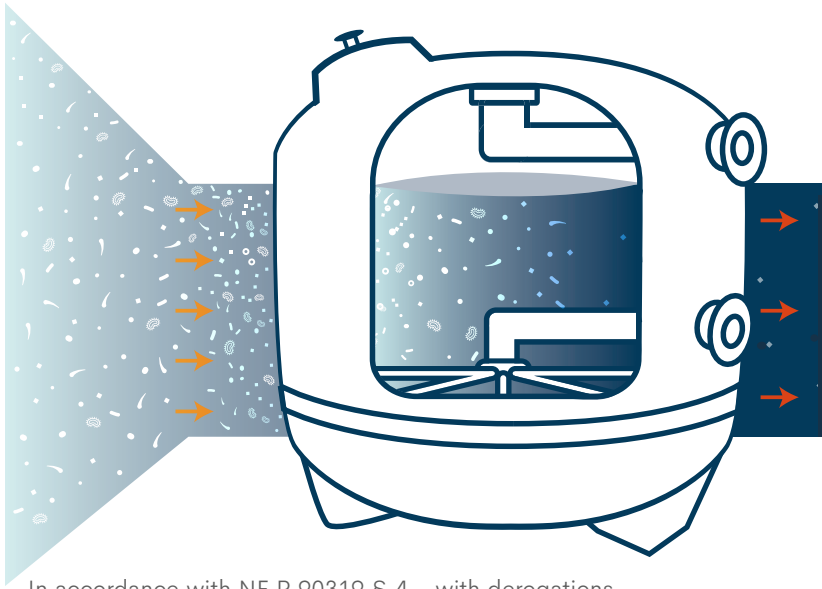
MAXIMUM FILTRATION CAPACITY

The effectiveness of QUIMHIDRO® CristalWater is based on the removal of the most common particles that can be found in a swimming pool and that cause the water to become cloudy. This simultaneously maximises savings and efficiency. We achieve this through a carefully selected grain curve and grain surface treatment technology, which allows us to prevent biofilm, keep the microchannels open and make the particles completely safe to handle.

Typical particles in an outdoor pool by order of expected mass

Type of particle	Size (µm.)	Mass (%)
Coarse powder	100-200	85%
Fine powder	10-25	10%
Human hair	70-100	2,5%
Coarse pollen	60-80	2,0%
Fine pollen	15-30	0,2%
Human cell	10-30	0,15%
Flocculant	60-80	0,10%
Algae	10-200	0,10%
Bacteria	0,5-200	0,003%

The usefulness of a filter medium is determined by a balance between micron rating and clogging capacity.



Test carried out by laboratories:

ifts
Institut de la Filtration et des Techniques Séparatives

99,64%
FILTRATION
CAPACITY

RESULTS COMPARATIVE	
AFM ng	99,25%
GLASS PEARLS	96,91%

In accordance with NF P 90319 § 4 – with derogations – Tests organised before a notary.

ENERGY EFFICIENCY

The Anti-Compaction Technology® is designed to keep the micro-channels that form in the filter mass open. When they are kept unblocked, the pressure in the filter is kept at its minimum level and the clogging capacity is kept at its maximum level, resulting in the following savings:

QUIMHIDRO	AFM® ng ACTIVATED FILTER MEDIA	GLASS PEARLS Superior filter media
IFTS test RA_2020_00006470 Point 4.3. **Filtration term:** Pressure Drop **Technical term:** Differential pressure filtering media (hPa.) **Calculation**: INPUT - OUTLET Pressure	**IFTS test RA_2020_00006469 Point 4.3.** **Filtration term:** Pressure Drop **Technical term:** Differential pressure filtering media (hPa.) **Calculation**: INPUT - OUTLET Pressure	**IFTS test RA_2020_00007015 Point 4.3.** **Filtration term:** Pressure Drop **Technical term:** Differential pressure filtering media (hPa.) **Calculation**: INPUT - OUTLET Pressure
d Pressure: -45 hPa	**d Pressure: -110 hPa**	**d Pressure: -93 hPa**
	145% More compared with QUIMHIDRO®	**107%** More compared with QUIMHIDRO®

WATER EFFICIENCY

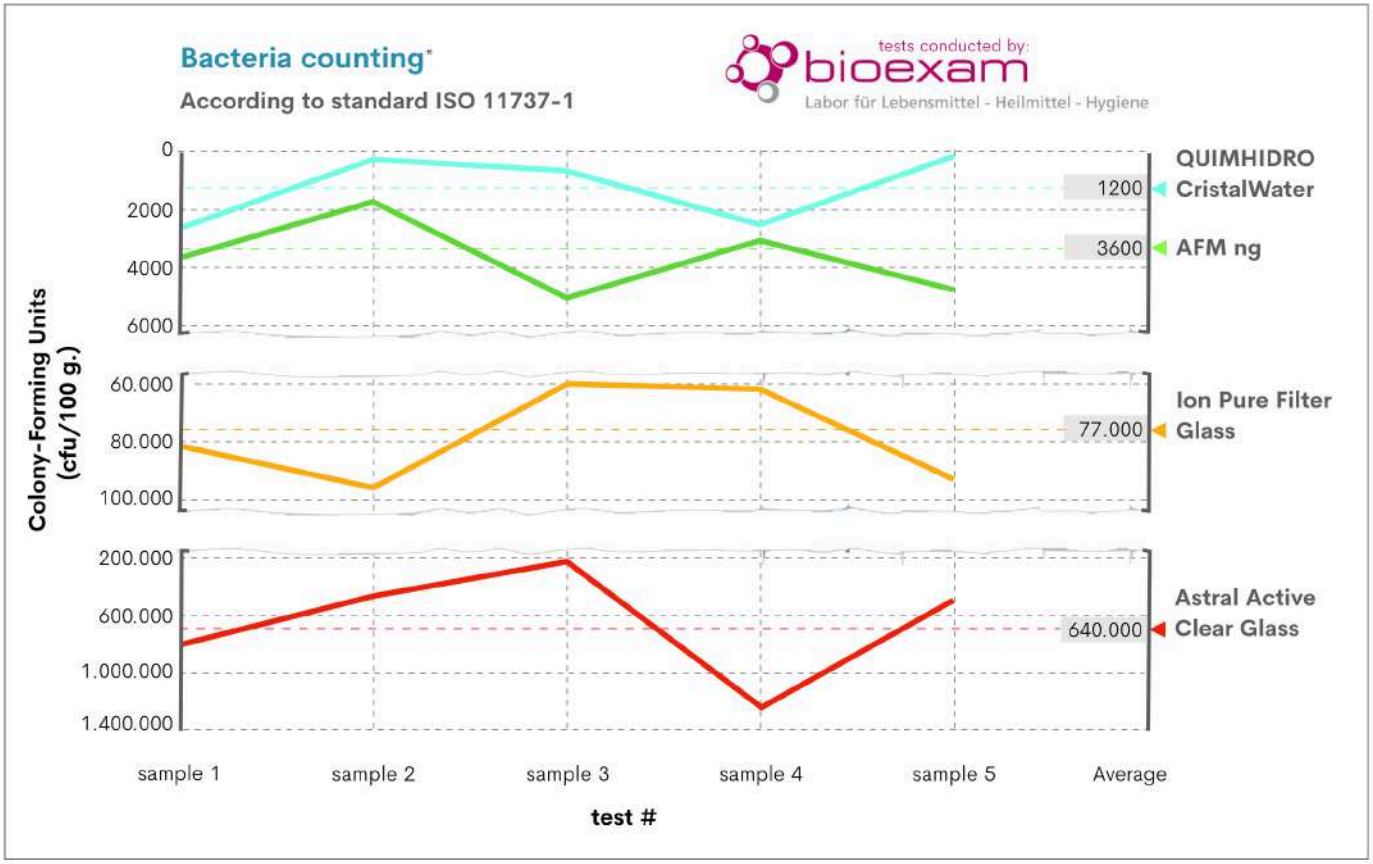
At the same time as saving energy, because we keep the microchannels open, we also manage to save water by reducing the need for backwashing. This means:

QUIMHIDRO	AFM® ng ACTIVATED FILTER MEDIA	GLASS PEARLS Superior filter media
Backwashings needed	Backwashings needed	Backwashings needed
1 x month	**4 x month**	**4 x month**
	300% More compared with QUIMHIDRO®	**300%** More compared with QUIMHIDRO®

*Siguiendo las recomendaciones del fabricante

A PROFESSIONAL RESPONSIBILITY

In an effort to keep users properly informed, we have turned to the Swiss laboratories Bioexam AG, who have carried out a series of bacterial presence tests. In this way we can check the different biosafety levels of some of the most recognised brands on the market:



ANTI-COMPACTION®
TECHNOLOGY

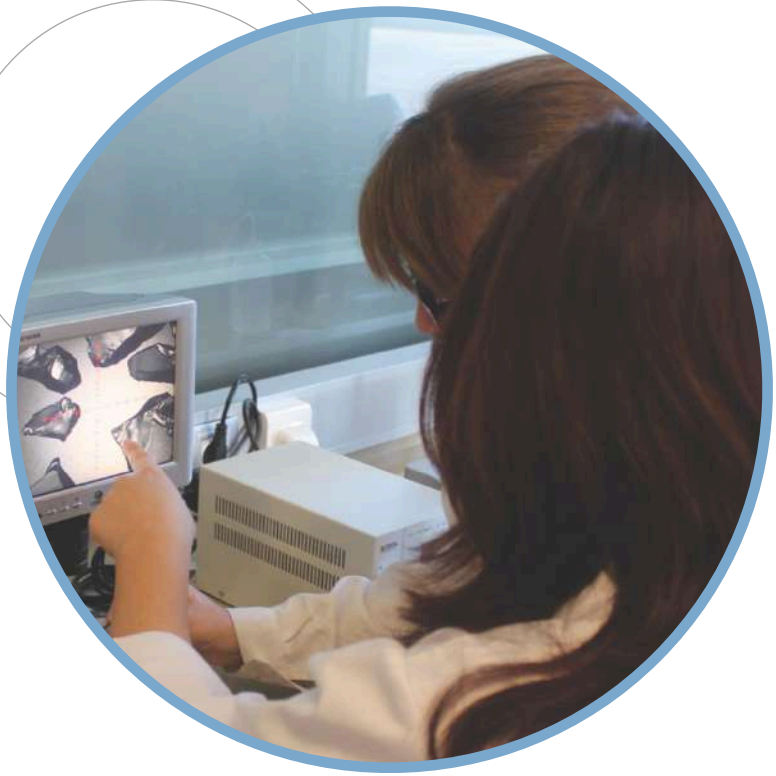
Most filter media available on the market reach the end of their useful life prematurely due to compaction, a process in which the segregation of fine and coarse grains blocks the microchannels of the filter media.

To avoid this result, QUIMHIDRO® CristalWater has developed the Anti-Compaction Technology®, a precise selection of the grain size, designed to extend the life of the filtering mass indefinitely.

A SINGLE LAYER FOR
FOR MAXIMUM DURABILITY

QUIMHIDRO® CristalWater only needs one layer, with a single grain size, to deliver maximum performance, unlike other filter media that require multiple layers of different grains to be effective.

This means that QUIMHIDRO® CristalWater can be used over and over again. Should it need to be removed for any reason, such as damage to the filter or replacement of nozzles, it simply needs to be removed and easily reused.



SECURITY,
A FUNDAMENTAL QUALITY

Safety is a basic quality when it comes to products used for the treatment of water for human use. That is why at QUIMHIDRO® CristalWater we subject our glass to an advanced micro-polishing process to eliminate sharp and cutting edges.

This process results in a glass that is harmless and completely safe to handle. Moreover, in case of breakage of crepinas and leakage of particles into the pool, QUIMHIDRO® CristalWater is completely harmless for bathers.

CERTIFICATIONS, ACCREDITATIONS AND TESTS

The properties of QUIMHIDRO® CristalWater are supported by IFTS tests, Bureau Veritas certifications and biofilm-free accreditation. We guarantee the highest quality standards in all our production batches by carrying out an exhaustive control of the entire production process:

IFTS test

- 99,64% filtration capacity
- Energy and water savings

- Hygienic origins (bacteria counting below 100g/cfu.)

Absence of Biofilm

Bureau Veritas Nº ES026775-CPI certification

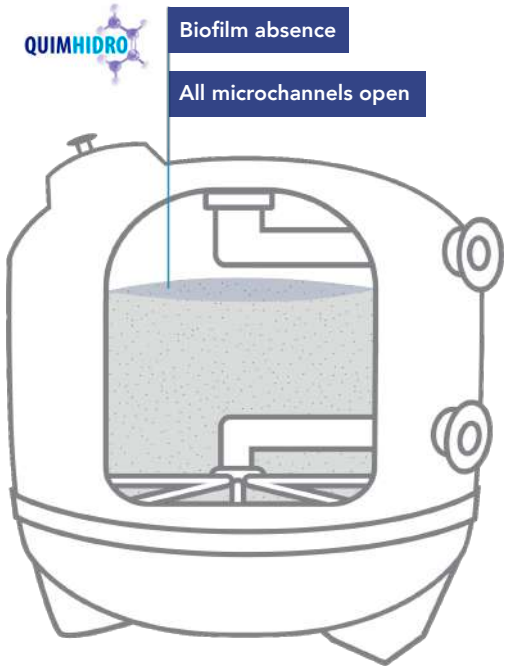
- Absence
- Product characteristics
- Production process
- Traceability
- Absence of free silica

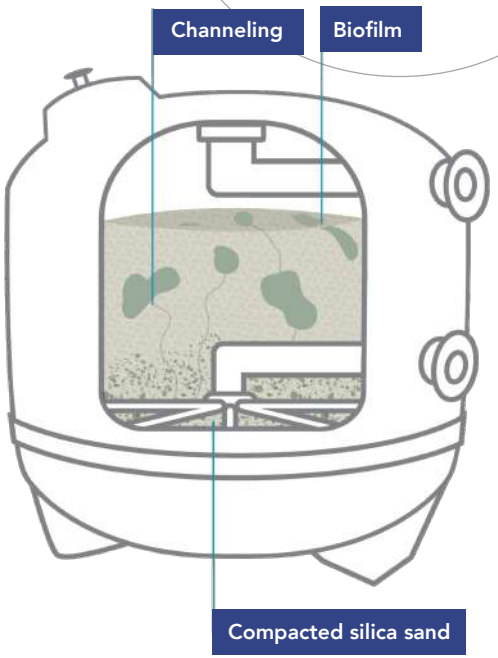
Bureau Veritas Nº ES026775-CPI certification

- Water treatment for human use according to the UNE EN 12.904 standard.

COMPARATIVE WITH OTHER MEDIA

QUIMHIDRO® COMPARED TO SILICA SAND





QUIMHIDRO® Features

- Free silica free Certified by Bureau Veritas.
- Biofilm free accredited
- Hygienic origin tested
- Extreme durability
- Minimal energy, chemical and water consumption
- High filtration quality
- Negligible pressure loss

Characteristics of silica sand

- Presence of free silica
- Becomes biological waste due to the presence of biofilm.
- Limited durability
- High consumption of chemicals, water and energy.
- Presence of preferential piping which reduces filtration quality.
- High pump pressure

ORIGIN OF QUIMHIDRO®

Origin: virgin glass obtained from flat glass. Free of bacteria and contaminants.

It is completely new glass, which has never been processed or been in contact with urban waste.

ORIGIN OF OTHER GLASS FILTER MEDIA

Origin: Bottles, jars, pieces of glass from urban glass banks and urban waste.

Expected contaminants: bacteria, ceramics, plastic, laboratory materials, metals, light bulbs, fluorescent tubes...

COMPARATIVE CHART VS OTHER GLASS FILTER MEDIA

	QUIMHIDRO Specially designed for water filtration	OTHER GLASSES Used as filter media
 PERFORMANCE	• Maximum filtration power: 99.64%. • Accredited absence of biofilm. • Reduced levels of chloramines and THMs. • Certified freshwater treatment.	• Inferior filtration capacity. • Lack of accreditation of absence of biofilm. • Lack of certification of freshwater treatments.
 EFFICIENCY	High reduction in the consumption of: • Water • Energy • Chemicals	• Less savings in all areas.
 HYGIENE & BIO-SECURITY	• Hygienic origins tested by Bioexam labs. • QUIMHIDRO® CristalWater has a purity level of 99.999% or higher, certified by Bureau Veritas.	• Expected presence of bacteria and other contaminants. • Absence of purity certification of any kind.
 DURABILITY	• The Anti-Compaction Technology® allows for an unlimited lifetime and the fact that only one layer can be used means that it can be reused indefinitely.	• Multiple layers are needed, which limits its lifetime in case the filter needs to be fixed. • Not reusable.
 SAFETY	• Micro polished particle free of sharp edges and pores. • Totally safe to handle.	• Dangerous edges when it comes to handling, especially during installation and removal.
 SUSTAINABILITY	• Recyclable and environmentally friendly packaging. Made from FSC-certified paper.	• Plastic as the main packaging material.

Hidro Water

FREQUENT ASKED QUESTIONS

HOW MUCH QUIMHIDRO® CRISTALWATER WILL I NEED FOR MY FILTER?

QUIMHIDRO® CristalWater takes up more space than silica sand due to the difference in particle density and its Anti-Crush Technology®. Compaction Technology®, so you will need 20% less than the amount recommended by the manufacturer in the filter instructions.

WHY DOES QUIMHIDRO® CRISTALWATER GIVE BETTER RESULTS THAN SILICA SAND? (SEE PAGE 16)

Silica sand loses its filtration capacity in a short time due to the growth of biofilm (bacterial colonies) between its grains, which creates preferential channels and clogging.

The absence of biofilm, together with the Anti-Compaction Technology®, makes QUIMHIDRO® CristalWater one of the most effective filter media on the market.

IS QUIMHIDRO® CristalWater COMPATIBLE WITH ALL FILTERS?

Yes, all standardised bed filters allow the use of QUIMHIDRO® CristalWater. If your filter does not have the internationally harmonised crevice opening size [0.35 +- 0.015 mm], we recommend that you replace the crevices with standardised ones.

WHY DOES QUIMHIDRO® CristalWater ONLY NEED ONE LAYER?

The combination of layers with different grain sizes inside the filter is necessary when the filter medium does not have Anti-Compaction Technology®, in order to delay clogging and to be able to carry out a correct backwashing.

Thanks to its highly calibrated media grain curve, QUIMHIDRO® CristalWater does not require different layers in any type of filter. This also guarantees an indefinite service life.

WHY IS QUIMHIDRO® CristalWater TRANSPARENT?

QUIMHIDRO® CristalWater has been specifically designed and produced for use in water filters. To ensure maximum purity only virgin glass is used, it is the only glass with a controlled origin and is guaranteed not to have been in contact with bacteria or any other contaminating material.

Unlike other glass filter media, it does not come from urban glass banks and is therefore the only one suitable for the filtration of water for human consumption.

IS COLOURED GLASS AS EFFECTIVE AS CLEAR GLASS?

The glass gets its colour at the time of manufacture due to the different chemicals, metals and oxides that are added to achieve each colour. Being encapsulated at the molecular level, this does not change any of the properties of the glass, nor does it affect the filtering process. However, as the glass used for coloured filter media comes from recycled urban glass circuits, and not directly from the manufacturer, it can have all kinds of bacteria and contaminants that can end up in the water, which makes it risky to use in water filters for human consumption.

IN WHICH SECTORS CAN QUIMHIDRO® CristalWater BE USED?

Thanks to its advantages and technical characteristics, QUIMHIDRO® CristalWater is currently used in thousands of installations. It is mainly used in:

- Private swimming pool
- Public swimming pool
- Advanced industrial installations such as Drinking Water Treatment Plants DWTP (according to UNE-EN 12904 and following standards), Waste Water Treatment Plants WWTP, Industrial Waste Treatment, Aquatic Parks, Nuclear Plants, Desalination Plants and Aquaculture Industry among others.

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More info & Downloads

Hi-Tech Glass Filter Media

With Anti-Compaction Technology®