

# Hi-Tech Glass Filter Media

AntiCompaction Technology®



Only NSF 61 Grade  
Glass Filter Media

**NatureWorks®**  
Glass Filter Media **Done Right!**





## What is Nature Works®?

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

Just by changing your current filter media for Nature Works® you will maximize every standard filter's performance.

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## What advantages does Nature Works® provide?

You will find noticeable significant improvement in:



PERFORMANCE



EFFICIENCY



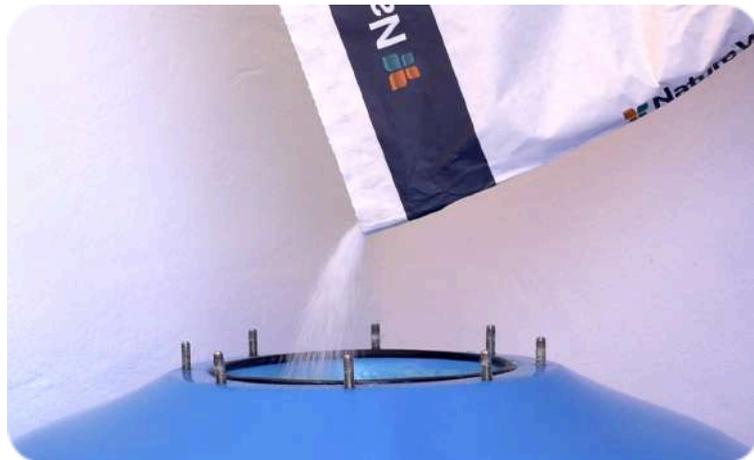
HYGIENIC &  
BIO-SECURITY



DURABILITY



SAFETY





Certified to  
NSF/ANSI/CAN 61  
# C0609841-02

## A unique filter media

Currently, the only glass filter media that passes official NSF testing to Standard NSF/ANSI/CAN 61.

The recognized certifier NSF - National Safety Foundation for the Promotion of Public Health and Safety Standards- has qualified Nature Works® as the only filter glass eligible for NSF/ANSI/CAN 61 certification in drinking water treatment for human use. In other words, no other filter glass on the global market exceeds the safety tests required by the organization.

## Highly demanding safety tests

To achieve NSF/ANSI/CAN 61 certification, a battery of 105 micro-safety tests must be successfully passed.

Also, a traceability system capable of monitoring the entire production process must be integrated. Nature Works®, by its very essence, is guaranteed micro-safety, thanks to its origin in the recycling of pure virgin glass.

Currently, Nature Works® is the only recycled filtration glass capable of passing the official NSF certification conditions for the NSF/ANSI/CAN 61 standard.

### Related Documentation

-  **NSF Evaluation report: 105 micro-safety tests**
-  **NSF statement: Standard 61 and traceability requirements**
-  **NSF/ANSI/CAN 50, 61 official certification**

Downloads and more:





# Performance

## Maximum Filtration Performance

Nature Works® is calibrated with 7 distinct grain sizes to efficiently capture the particulate matter found in a swimming pool that clouds the water. This simultaneously maximizes savings and efficiency. **We achieve this by polishing the glass grains, sorting them by caliber and re-combining them in an engineered 7-grain ratio.** This process insures open micro-channels (>97%) allowing uniform disinfecting water contact, thereby eliminating biofilm growth, channel blocking, compaction and clumping.

Typical particles in an outdoor pool in order of expected mass

Particle Type	Size (µm.)	Mass (%)
 Thick dust	100-200	85%
 Thin dust	10-25	10%
 Human hair	70-100	2.5%
 Thick pollen	60-80	2.0%
 Thin pollen	15-30	0.2%
 Skin Cell	10-30	0.15%
 Regular floc.	60-80	0.10%
 Algae	10-200	0.10%
 Bacteria	0.5-200	0.003%



The utility of a filter media is determined by the optimal compromise between micron rate and storage capacity.

Test conducted by laboratories:



# 99,64%

## FILTRATION PERFORMANCE

### COMPARATIVE RESULTS

AFM ng 99,25%

Glass Pearls 96,91%

According to standard NF P 90319 4 - with derogations -  
Test organized before a Notary. Download the full report from our website.



# Efficiency

## Energy savings

The Anti-Compaction Technology has been engineered to keep the micro channels that form in the filtering mass open. When they are kept unblocked, **the pressure in the filter stays at its minimum limit and the debris capturing capacity stays at its maximum level**, resulting in the following savings:

### Nature Works

IFTS test RA\_2020\_00006470 Point 4.3.

**Filtration term:** Pressure Drop

**Technical term:** Differential pressure filtering media (hPa.)

**Calculation:** INPUT - OUTLET Pressure

**d Pressure: -45 hPa**

### AFM ng

IFTS test RA\_2020\_00006469 Point 4.3.

**Filtration term:** Pressure Drop

**Technical term:** Differential pressure filtering media (hPa.)

**Calculation:** INPUT - OUTLET Pressure

**d Pressure: -110 hPa**

**145%** More compared to  
Nature Works® Hi-Tech

### Glass Pearls

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: -93 hPa**

**107%** More compared to  
Nature Works® Hi-Tech

## Water savings

At the same time as we save energy, due to keeping the micro channels open, we also manage to save water as we **reduce backwashing requirements**. This means:

### Nature Works

Backwashing needs\*

**1 monthly**

### AFM ng

Backwashing needs\*

**4 monthly**

**300%** More compared to  
Nature Works® Hi-Tech

### Glass Pearls

Backwashing needs\*

**4 monthly**

**300%** More compared to  
Nature Works® Hi-Tech

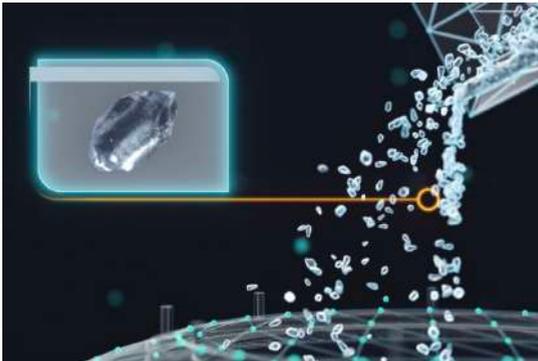
\* According to manufacturer's recommendations



# Hygienic and Bio-Secure

## Bio-Security is a professional responsibility

We take the biological purity of our product seriously. Our competitors materials were tested against Nature Works® by the Swiss labs at Bioexam AG, who performed a battery of tests for bacterial presence. Nature Works® excelled having results very close to zero bacterial presence, offering the highest level available in terms of Biosecurity.



## Micro-Polishing Tech

After crushing the glass, the filter particles are micro-polished by “shot-colliding” the glass particles together polishing one grain against another to remove all edges and micro-fissures where biofilm can grow. All dust is removed and the remaining filter grains achieve maximum hardness for a maximum durability (7 on the Mohs scale).

## High Calibration

Each of the remaining grains are separated by caliber in the following granulometric curve: 0,6 - 0,7 - 0,8 - 0,9 - 1,0 - 1,1 - 1,2 mm and are re-mixed in an engineered proportion that avoids the segregation effect (fines at the bottom and thicker grains on top). This allows us to control the size of the resulting media's micro-channels in the filter bed. The end product is > 97% open channels, allowing for ideal water flow through the media bed carrying oxidants to all parts of the media-thereby preventing biofilm grow and the clumping and clogging that follow. In addition, thanks to our technology, up to 20% less filtering glass is needed compared to silica and up to 10% less compared to other filter glass.



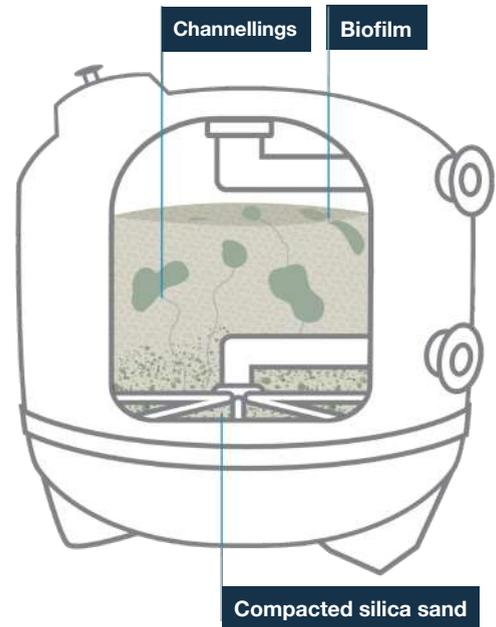
**ANTI-COMPACTION  
TECHNOLOGY**

# Advantages of Nature Works® over silica sand



## Advantages of Nature Works®

- High filtration quality
- Absence of Free Silica Bureau Veritas Certified.
- Accredited Absence of Biofilm
- Extreme durability
- Minimum energy, chemicals and water consumptions.
- Negligible loss of pressure



## Disadvantages of silica sand

- Preferential channeling presence that reduces filtration quality
- Free silica presence
- It becomes bio-hazardous due to biofilm presence
- Limited durability
- High chemicals, water and energy consumptions
- High pump pressure

# Nature Works® vs. other glass filter media: origins



## Nature Works® Virgin Origin

Made from virgin glass from plate and flat glass window manufacturing. This source material is Bacteria & Contaminant free. It is so pure that it is the only glass media NSF-61 officially certified for drinking water filtration. It is made from recycled new glass that has never been in contact with urban waste. This is Certified by NSF.



## Origin of all other filter media glass

Bottles, jars, and miscellaneous glass from urban containers.

**Expected contaminants:** micro-plastics, pathogens, ceramic, plastic fragments, metals, light bulbs, fluorescent tubes, etc.

