



**Watch Water® USA**  
A Water Company

# PRODUCT INFORMATION

## KATALOX - LIGHT®

**ANSI/NSF 61 Certified**

**From**

# WATCH WATER



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# Katalox-Light®



## Recommended System Operating Conditions:

Inlet water pH		5.8 - 10.5
Min. Bed Depth	US	29.5 inches
	SI	75 cm
Optimal Bed. Depth	US	47 inches
	SI	120 cm
Service flow	US	6 - 12 gpm/ ft <sup>2</sup>
	SI	15 - 30 m/h
Backwash velocity	US	8 - 10 gpm/ ft <sup>2</sup>
	SI	20 - 25 m/h
Backwash time		5 -10 minutes
Rinse time		1 - 2 minutes
ORP (min)		Negative 170 mV

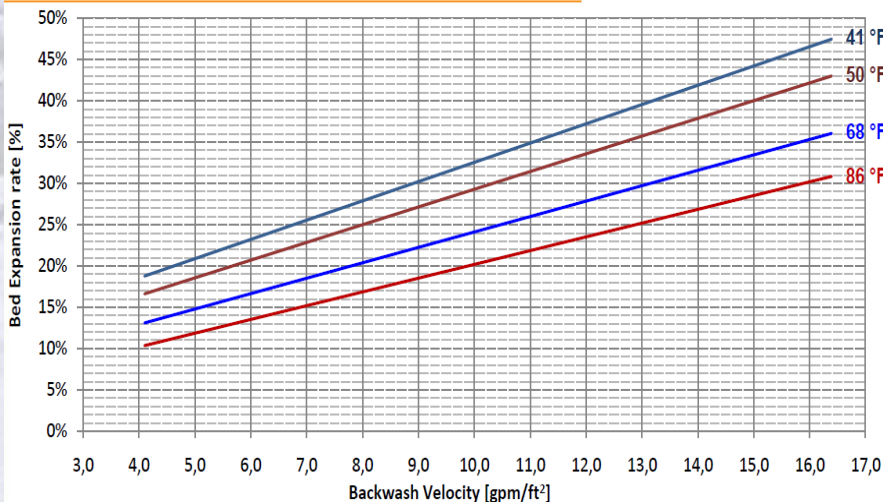
## Requirements:

Freeboard	25% - 35%
Backwash pump	No

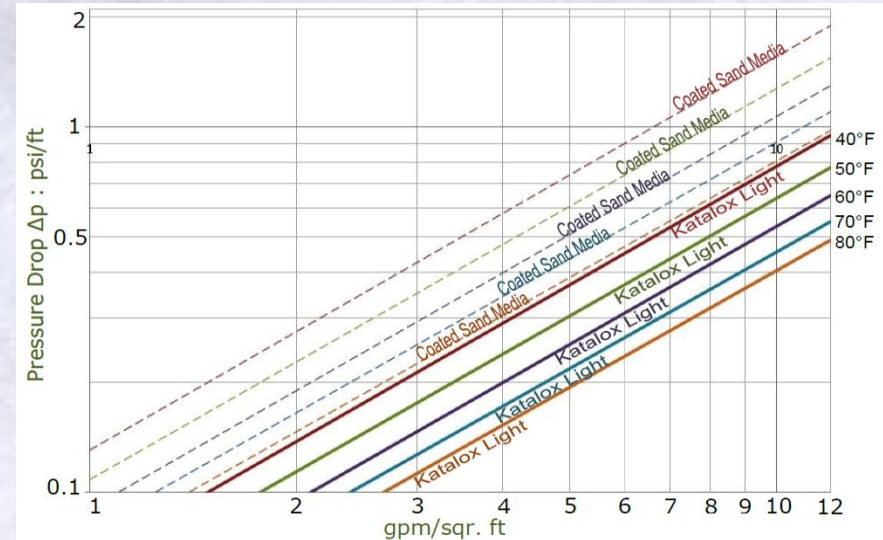
## Physical Properties:

Appearance	Granular black beads	
Odor	none	
Mesh size	US	14 x 30
	SI	0.6 - 1.4 mm
Uniformity Coefficient	≤ 1.75	
Bulk density	US	66 lb/ft <sup>3</sup>
	SI	1060 kg/m <sup>3</sup>

**Backwash Velocity [m/h] vs. Bed Expansion [%]:**



**Pressure Drop**





## Few of Many Advantages

- NSF/ANSI Standard 61 Certified
- No chemicals required if ORP Negative 170 mV
- No chemical regeneration is required
- 7 to 10 years service life
- Only media with Filtration and Removal in one

**TWO**

- Filtration
- Removal

**in**

**ONE**

**Katalox-Light®**

# Katalox-Light®



**Katalox-Light®** is a light weight but with a very high content, Granular Katalytic Filter media for a whole house or complete Municipality Systems used for removing

- Iron and Manganese
- Hydrogen sulfide
- Arsenic
- Radium & Uranium  
Including Selenium

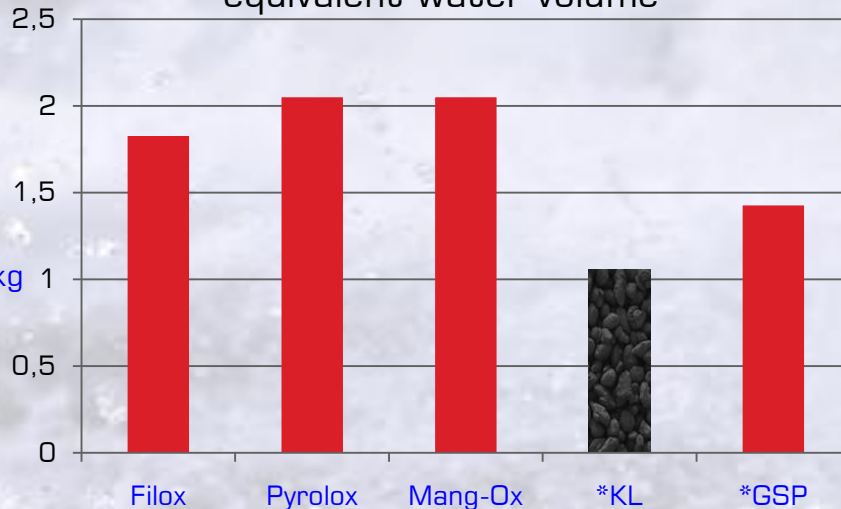


You will learn more about Applications in this Presentation. The **Katalox-Light®** operates both as a chemical-free water treatment for your home or Industrial application anywhere in the world for the “**BEST PRODUCT AVAILABLE**”.

# “WHY IT IS THE BEST”



Bulk Density Comparison with equivalent water volume



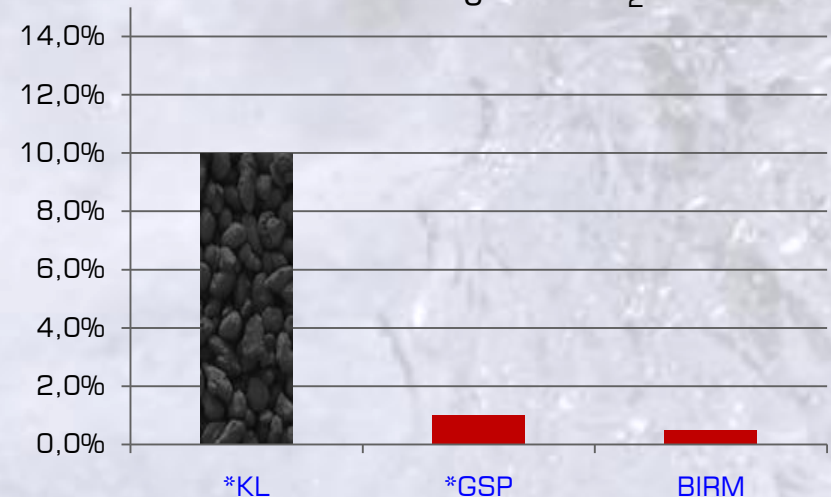
Water  
1L = 1 kg  
= 2.2 lb

*\*KL = Katalox Light*  
*\*GSP = Greensand Plus*

One liter media mass = 1 kilogram is the best weight for any media

\*Heavier the media requires higher backwash rates and extra pumps (Energy) to backwash. 30 – 40 gpm/ft<sup>2</sup> Backwash and rinse rate is normal for Heavier medias.

Active Coating of MnO<sub>2</sub>



The **Katalox-Light**<sup>®</sup> systems eliminates Iron, Manganese and Hydrogen sulfide so easy because **KL** filter media has highest coating of Manganese dioxide, an active ingredient. For this reason **KL** works while the other systems fail.

# Why Chemical Free?



Not only because of High coating on the surface of ZEOSORB, KL media has the highest surface area, this is the reason it is chemical-free and chemicals like chlorine, chlorine dioxide, potassium permanganate are typically not required. Chlorine should not be used for disinfections or when iron bacteria is present.

## Whole House System

The Katalox System consists of a pressure vessel, Control valves (fig. 1) and WATCH® **Katalox-Light**® media.

Water flows through the KL Filter media which provides a filtration down to 3 micron.

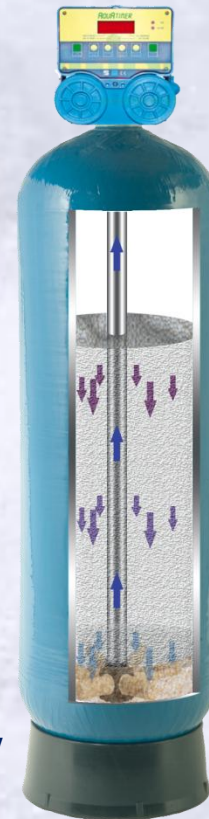


fig. 1



# Why Chemical Free?



And as a Katalyst to use the oxygen content of the water to oxidize Iron, Manganese and Hydrogen sulfide. Subsequently these oxidized particles are trapped by the (High Surface) Filter media and removed from any water during the backwash cycle which is very short because of the media's LIGHT WEIGHT. Normal backwash time is 5 to 10 minutes.

## Additional Advantages

- High Filtration rate : 4.3 GPM (max.)/ cubic ft. of KL media
- Effective at pH 5.8 – 10.5
- Treats up to 85000 mg of Iron, 42500 mg Manganese and 14000mg of Hydrogen sulfide per cubic. feet. of **KL** media
- Lowest cost on GPM basis
- 7 to 10 years warranty on media
- Contains NO Crystalline Silica, ANSI/NSF 61 Approved

# Conclusion



## Short summary:

**Katalox-Light**<sup>®</sup> media is a high grade, Granular filter media (Coated ZEOSORB) used for removing Iron, Manganese and Hydrogen Sulfide from City Water, Surface water and Well water.

Arsenic, Radium, Uranium removal using **Katalox-Light**<sup>®</sup> (see page ..)

The **Katalox-Light**<sup>®</sup> media operates both as a Removal and Filter, working with natural Oxygen in water or an oxidant as a Katalytic media due to its ability to accelerate the reaction between the oxidizing agent and prevalent DISSOLVED OXYGEN in water.



# Conclusion



## **Short summary** *(continued)*:

Dissolved Iron, Manganese and Hydrogen sulfide will stay in solution unless the equilibrium is changed. Iron and Manganese that is not oxidized become Katalytically precipitated and then adsorbed directly on the media. **Katalox-Light**<sup>®</sup> media has very high surface area that immediately stops oxidized or precipitated forms of Iron, Manganese and hydrogen sulfide from passing through the bed.

## **Law of Filtration:**

Higher the surface better the filtration. Most of the Manganese is rapidly removed in the few inches of the media where it is further oxidized to Manganese dioxide ( $MnO_2$ ).

***Thanks for reading!***