

PRODUCT INFORMATION

KATALYST-LIGHT

ANSI/NSF 61 Certified



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February 2014

KATALYST-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	4 - 12 gpm/ ft ²
	SI	10 - 30 m/h
Backwash velocity	US	10 - 12 gpm/ ft ²
	SI	25 - 30 m/h
Backwash time		10 - 15 minutes
Rinse time		2 - 3 minutes
ORP (min)		Negative 170 mV

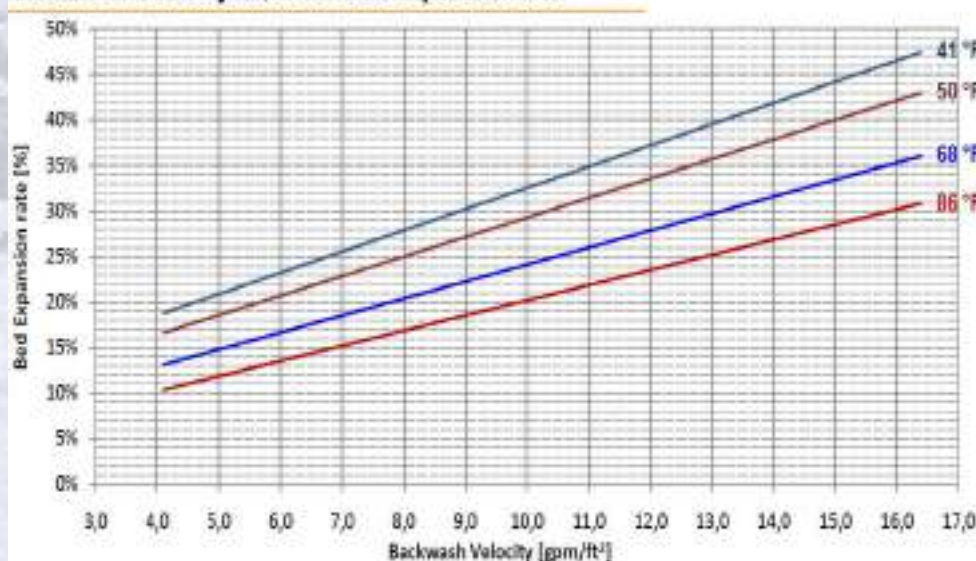
Requirements:

Freeboard	40%
Backwash pump	No

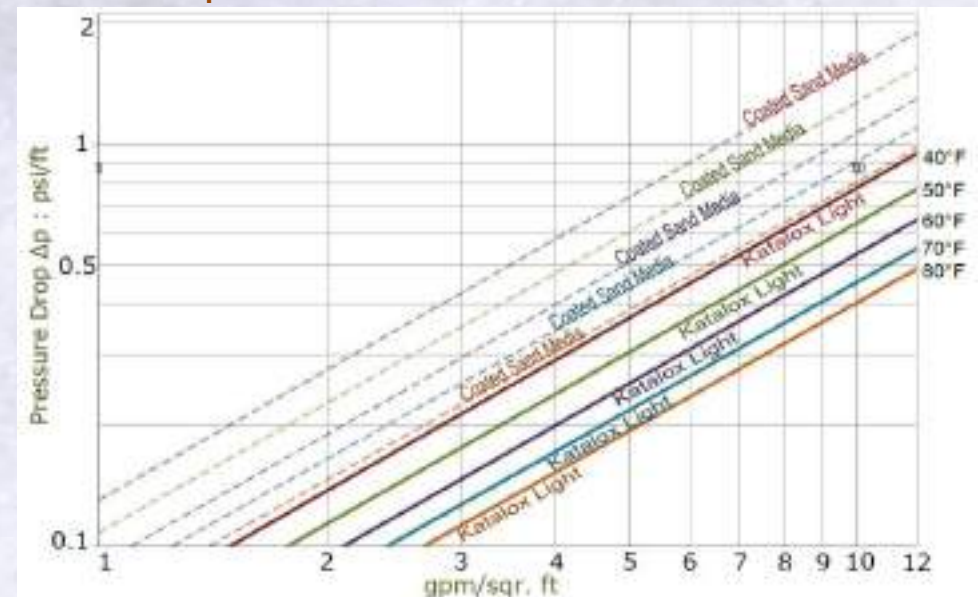
Physical Properties:

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 ³
	SI	1060 kg/m ³

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
in
ONE

• Filtration
• Removal

The diagram features the text 'TWO in ONE' in large, bold, blue letters. To the right of 'TWO' is a box containing the text '• Filtration' and '• Removal'. A line with an arrow points from this box to the word 'in'. Another line with an arrow points from the word 'ONE' to the same box.

KATALYST-LIGHT



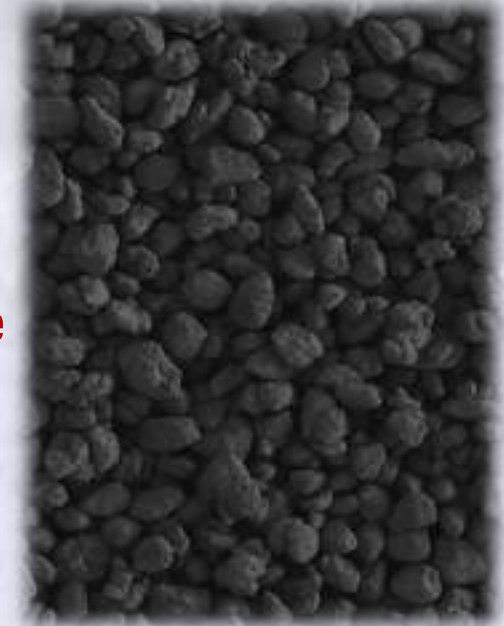
Katalyst-Light is a light weight but with a very high content, Granular Katalytic Filter media for a whole house or complete Municipality Systems used for removing ➤ **Iron and Manganese**

➤ **Hydrogen sulfide**

➤ **Arsenic**

➤ **Radium & Uranium**

Including Selenium



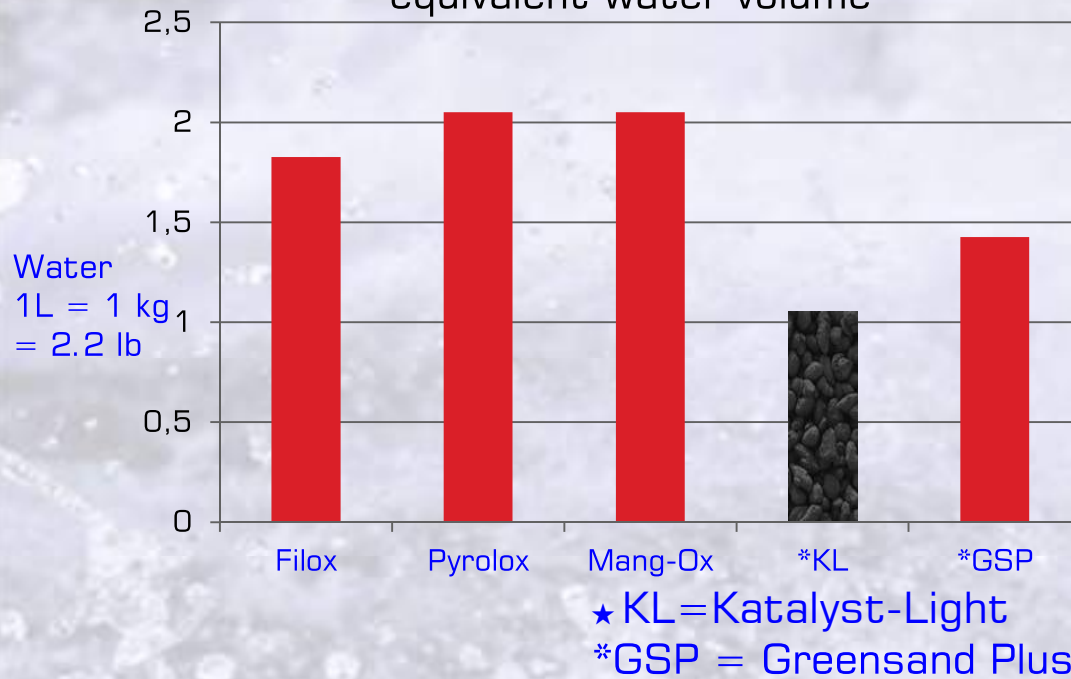
You will learn more about Applications in this Presentation. The

Katalyst-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”



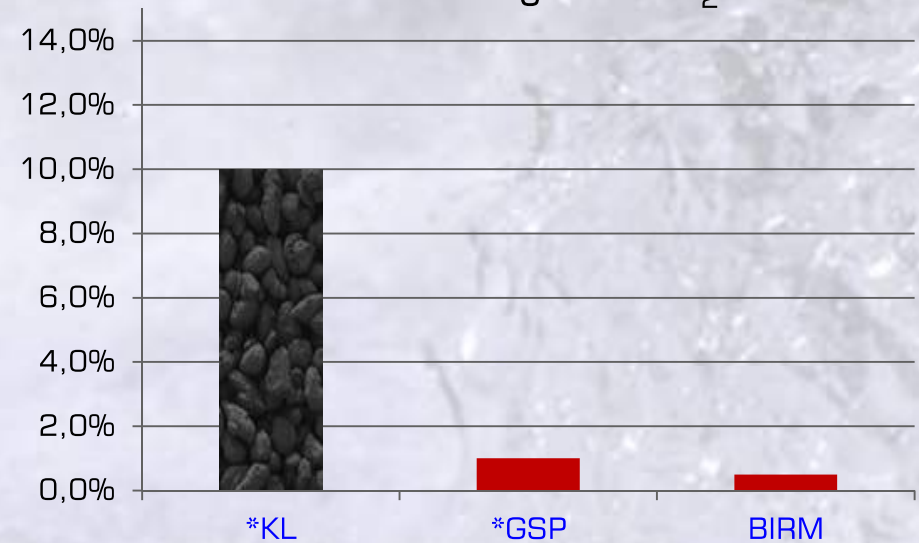
Bulk Density Comparison with
equivalent water volume



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/ft² Backwash and rinse rate is normal for Heavier medias.

Active Coating of MnO₂



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

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

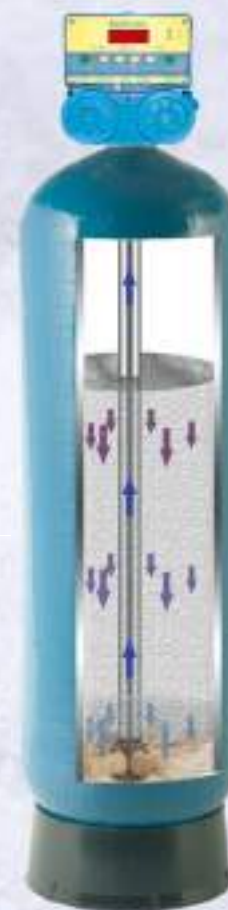


fig. 1

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:

Katalyst-Light 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®** (see page ..)

The **Katalyst-Light** 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. **Katalyst-Light** 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!