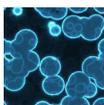


The work of HRCM as a filter allows the purification of water from microorganisms – bacterium and viruses – and this seems paradoxical to many people. The fact is that microorganisms cannot swim in the water like fish or swimmers in a pool. They have “to sit” on micro rafts – some kind of small-sized particle. As HRCM withholds all kind of particles, even the smallest, they withhold all kinds of microorganisms: they remain within the HRCM thickness, and water is purified from any kind of bacterium and viruses. However, microorganisms lying in the ramified structure of HRCM can continue to multiply. That is why in order to stop the multiplication of organisms within the HRCM thickness it is necessary to take some others measures, for example to silver HRCM, as is used in all HRCM filters for drinking water. Silvered HRCM has a great advantage as compared to other silvered sorbents (for example, silvered activated carbon) not only in efficiency in protection from bacterium and viruses (microorganisms can pass silvered carbon on its "raft", but it can not pass HRCM), but also the f HRCM as a sorbent and filter surpasses all world known equipment in water purification sphere. With a single filtration of drinking water, turbidity decreases by 25-60 times, the number of fluidized particles is reduced by 10 – 30 times, it achieves a high level removal of sulfates, sulfides, fluorides, chlorides, nitrites, ammonium nitrogen, iron, zinc, copper, aluminum, manganese, lead, molybdenum and free chlorine.



HRCM has a unique property: when solution passes through the HRCM layer of 10 - 15 cm thickness biological consumption of oxygen (BCO) decreases by 2 times. Only special bacterial filters can work similarly. The cost of such filter, even low-powered (2 l/min productivity) 'PENTA PURE' an American production, costs approximately \$1000.00. Comparative analysis between characteristics of the 'HRCM' filter and the 'Barrier' filter (USA) revealed the superiority of the first over the second by decreasing of the following features:

- clarity – by 5 times;
- content of fluidized substances – by 7 times;
- turbidity – by 16 times;
- content of iron – by 187 times.

In some cases the superiority of HRCM filters over other filters is not multiple but absolute.

So, for example, not a single filter in the world can completely purify water from humus. HRCM filter can, and other filters can not make humic (marsh) water drinkable– an absolute advantage.

When purifying industrial sewages with HRCM filters it was determined that they sorb oil products and ether soluble substances to the levels less than maximum allowed concentration (multiplicity of purification is more than 1000). HRCM removes many of the cations very effectively.

Only very few complex industrial filtering units (consisting of three and more different filters) have such universal ability – simultaneously purifying waste waters from anions, cations and organic substances. HRCM purifies water effectively from undissolved admixtures and also from dissolved ones. If HRCM could also effectively remove molecular solutions from water, it would be unadvisable to be used for purification of drinking water: as a result - distilled water. The fact is that in water after HRCM filtration natural salts and microelements remain absolutely safe and hence it is advisable to drink. With a single filter, the drinking water turbidity decreases 25-60 times, the amount of suspended particles - 10-30 times, the high degree of removal of sulfates, sulfides, fluorides, chlorides, nitrites, ammonia nitrogen, iron, zinc, copper, aluminum, manganese, lead, molybdenum, chlorine takes place.

'HRCM' filters provide a principally new level of water purification in which Water not only becomes crystal pure but acquires curative properties.

It has been proven that HRCM has healing properties not only when applied to wounds, burns, trophic ulcers but also when ingested. Research was carried out by scientists of the Army Medical College (Saint Petersburg), The Institute of Emergency Aid named after Djanelidze (Saint Petersburg) and The Centre of Extreme Medicine (Moscow). In the Russian Cardiological Centre, (Ministry of Health of the Russian Federation) HRCM was tested for sorption properties in the process of blood plasma purification. The effectiveness of HRCM was successfully proven in the sorption of uric acid from plasma (level of parameters decreasing – more than 50%). There was a noted tendency of the decreasing of keratin (metabolite of the nitrous change). The wound healing effect of HRCM powder results in decreasing of fatal outcomes, reduction of time of sharp inflammation, creation of wound medium unfavorable for active vegetation of microbe flora. Based on the facts above there is evidence to suggest that, (investigations in this area are being continued,) water passed through HRCM filter has a similar influence on the body.

Above we showed how sharp changes in carbon properties depend on its inner structure changing. Properties of water also depend on the inner structure. To the question “How many molecules are there in the lake?” one can answer “One”. This is one great molecule. Such are

the fantastically strong intermolecular connections of water. HRCM filtration of water partially destroys intermolecular connections of water or, in other words, partially destroys water clusters. Thereby surface area increases sharply causing the biological activity of drinking water to increase.

Special research, undertaken in Saint Petersburg at 'The Research Institute of Physical Culture', showed that water obtained by the way of HRCM filtration of ordinary tap water acquires unusual properties both for tap and bottled water: increase in work capacity, promoting the processes of effective recovery of the body's power after physical activity as well as the raising of immunity of the organism.

People, who regularly drink usual tap water after HRCM filtration practically stop experiencing flu and other infectious diseases (the result of immunity raising), their pressure normalizes. Some people have experienced hearing improvement (the reason for this remains unknown).

Bouquet of flowers in HRCM filtered water lasts much longer than in any other water.

As referred from Golden formula Website: The difference between the filter produced by "Golden Formula", HRCM and filters produced by "Hercules" is that, "Hercules" uses for the modern production of the filters TRH wherein Golden Formula uses its proprietary sorbent HRCM. HRCM can be distinguished from TWG, HRCM has no smell, and TRH has an acidic smell (the remnants of sulfuric acid from the mass of the TWG). In addition, TRG is gray, whereas HRCM has a deep black color. The TWG as a sorbent is prohibited in many countries - precisely because of the acid residues are not removed even at high temperature processing. The activity of these residues is so great that containers used for transporting TRH get corroded.

Analytical Centre Chemical Faculty of Moscow State University, conducted a comparative analysis of the sorption properties of HRCM and TRH (see Table below). In the expert opinion (signed on 20.10.2000, the head of the Center Prof. Shpigun OA), concluded that " HRCM has a significantly higher sorption rates across a number of components ... so HRCM is a unique sorbent for integrated treatment as drinking water and industrial waste.

Defined Components;	Multiplicity cleaning	
YCBP HRCM	TPГ TRH	
Oil and substance	1000	3.5
Suspended particles	100	5 Five

Phosphates	35	1.3
Copper	30	1.3
Sulfides		
Vanadium	5	--
Chromium (+6)	5	2.25
Fluorides	5	1.05
Iron	3	1.5
Nitrates	3	1.0
Ammonium	2-3	1.4
Manganese	2	1.2

The thickness of the filtered layer sorbents - 10 cm