# ADSORBENT "X" Glass ceramic composition

## The purpose of the absorbent "X"

### relevance and safety.

The adsorbent is an inorganic material. In terms of its chemical composition, it coincides with the original material ceramics, glass. When used, it does not emit harmful substances.

### Chemical and biological stability of the adsorben

Powdered adsorbent is resistant to all chemical and biological influences. Not subject to rotting and decay

### and frost resistance of the adsorbent

The adsorbent does not oxidize, does not burn, does not ignite. Resistant to temperature drops, - 60 \* C melts at t + 950 \* C

#### **Durability of the absorbent**

The service life of the adsorbent is not limited due to its chemical and biological resistance. Has a degree of high sanitary-epidemiological and environmental safety

The use of an adsorbent prevents sulphurous gas from being aerated into the atmosphere, evaporation of sulfur dioxide, hydrogen sulphides and other unpleasant h. apaches of harmful substances, without harming the ecology of the planet.

Designed for use in chemical, technical processing factories and plants.

Nº п/п	Chemical and technical characteristics of the adsorbent	+/-	The novelty of using the adsorbent	+/-
1	The adsorbent does not sink in water (regardless of its temperature), as well as in hydrocarbon and other chemical compounds.	+	The adsorbent is used to cover the surface of water in pools, sedimentation tanks, reservoirs, regardless of the area, location and composition of the water.	+
2	The adsorbent covers the surface of the water, forming a kind of "blanket", absorbs harmful microparticles and crystallizes them.	+	The adsorbent prevents emissions of sulfur dioxide into the atmosphere, evaporation of sulfur dioxide, hydrogen sulphides and other harmful substances, without harming the ecology of the planet.	+
3	The presence of the adsorbent above the water surface does not interfere with the technological processes associated with topping up, draining, etc. water in the pool, regardless of its temperature, does not cause blockage of sewer pipes. Adsorbent always remains in its original position - on the surface of the water.	+	The adsorbent studies are confirmed by the conclusions of the laboratory	+
4	The residence time of the adsorbent above the water surface, not less than 3 months, maximum, up to 12 - 18 months, depending on the contamination of the water. It retains its properties throughout the entire period of its use.	+	Designed for use in chemical, technical plants and other hazardous industries.	+
5	At this stage of research, the adsorbent absorbs the following chemical elements: Hydrogen; Carbon; Fluorine; Magnesium; Calcium; Iron; Zinc; Iodine; Lead; Silicon; Phosphorus; Sulfur; Titanium; Chromium.  Absorption of radiation particles is possible.	+	The adsorbent has been tested in the treatment tanks of the tannery. During the day of using the absorbent, the concentration of harmful emissions decreased by 87%.	+

#### Adsorbent application technology

- \* The adsorbent is introduced into the water using special equipment by the developer's staff.
- \* The adsorbent above water or other liquid forms a blanket-like coating, absorbing microparticles from it and crystallizing them.
- \* After 3 to 12 months, depending on the indications of laboratory tests, the developer's specialists make a complete or partial replacement of the adsorbent.
- \* During the period when the adsorbent is on the surface of the water, it is allowed to drain by adding water to the pool, subject to the recommendations of the developer. When the water is drained below the permissible level and the powder enters the sewer system, there is no blockage of the sewer pipes.
- \* The drug is absolutely harmless to both humans and the environment.
- \* Consumption of adsorbent per 1 m2 of water surface area is up to 2 kg.
- \* Warranty period of use is at least three months, with subsequent partial or complete replacement of the absorbent, depending on the contamination.

#### **Adsorbent samples**



Adsorbent

Adsorbent above water surface



The result of using an adsorbent in polluted water, with impurities of chemical elements (iodine, calcium, potassium, chlorine, lead, zinc, iron). All harmful substances present in ordinary drinking water crystallize, but do not evaporate.

### Industrial enterprises where an adsorbent can be used to reduce harmful emissions into the environment.



Today, the problem of environmental protection is becoming more and more urgent. All over the world, a large amount of impurities and man-made waste is thrown into the atmospheric air and water.

With the help of an adsorbent, it is possible to significantly reduce the harmful components of pollution accumulated in water and the atmosphere as a result of:

- emission of odors into the atmosphere, such as sewage waste water, toxic waste from factories and plants, oil spills;
- processing and combustion of organic substances (coal and brown coal, oil, oil products);
- in the production and use of sulfuric acid, smelting of sulfurcontaining ores emitted by thermal power plants, enterprises of ferrous and non-ferrous metallurgy, coke and cement plants for the production of synthetic fibers, ammonia and cellulose, etc.

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