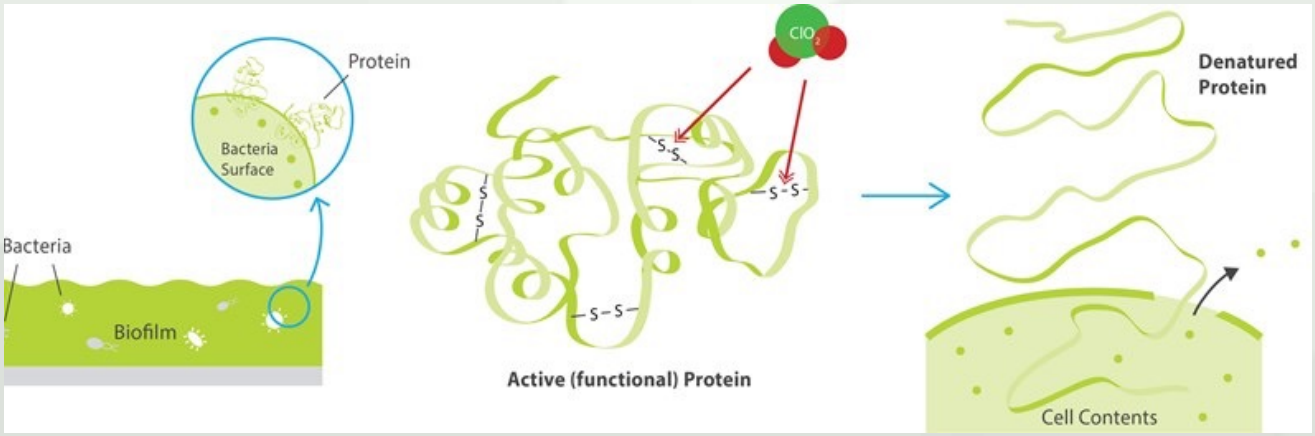
Protox Hysan kills Mould & Fungus according to EN-test 13697.

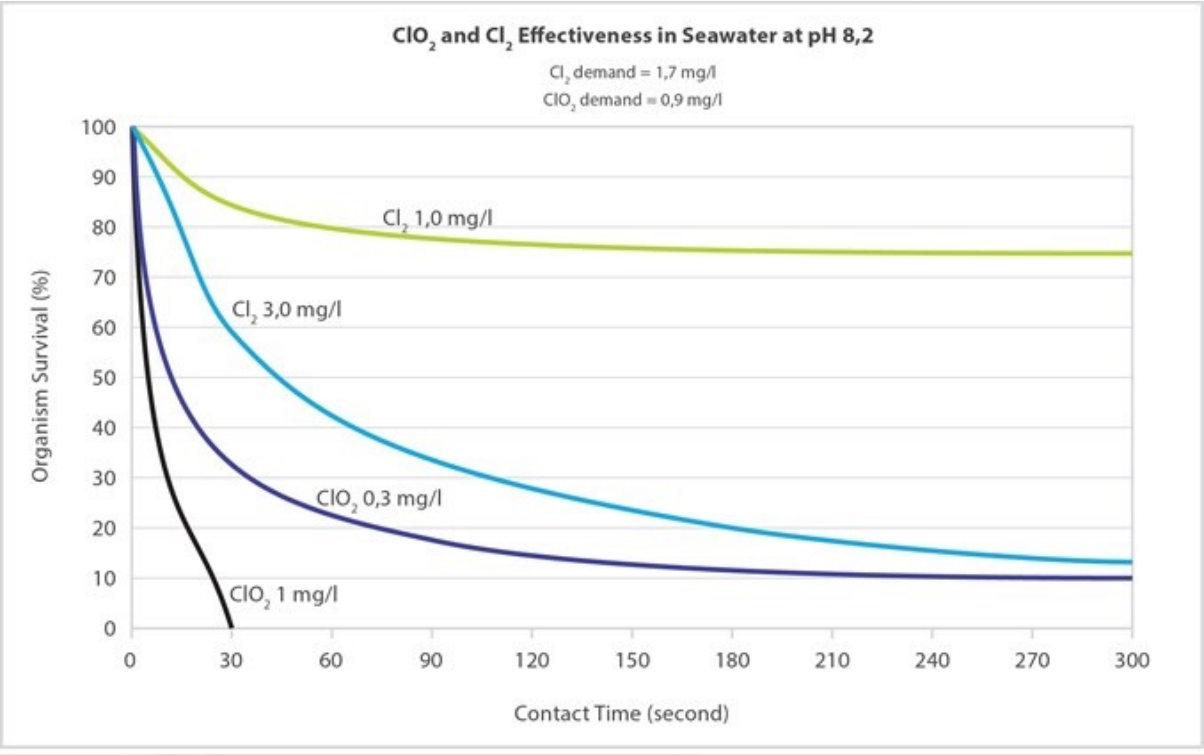
It is the “Protox-Method” that removes all the mould. The Protox Hysan destroyed the cell-wall, but the method (spray, brush, rinse) removes it from the surface.

The oxidizing properties and the radical nature of Chlorine Dioxide make it an excellent virucidal and bactericidal agent in a large pH range.

In alkaline media the permeability of living cell walls to gaseous chlorine dioxide radicals seems to be increased allowing an easier access to vital molecules. The reaction of chlorine dioxide with vital amino acids is one of the dominant processes of its action on bacteria and viruses.

Compounds within the cells and on the surface of cell membranes that contain oxidisable material react with chlorine dioxide, causing cell metabolism to be disrupted. Chlorine dioxide also reacts directly with disulphide bonds in the amino acids and the RNA in the cell. Unlike non-oxidizing disinfectants, chlorine dioxide kills microorganisms even when they are inactive. The oxidative load placed on the cells by the action of chlorine dioxide mean that most microorganisms are unable to build up resistance to chlorine dioxide.



In practical terms however, few bacteria live alone, and they are most often found in water and on surfaces in the form of a “biofilm” which is a close association of many millions of bacteria. Many biocides have particular problems in penetrating this biofilm, due to the polysaccharide “glue” that is secreted by bacteria such as Pseudomonas to hold the biofilm together. Unlike most biocides, chlorine dioxide can effectively penetrate the polysaccharide layer of biofilm without being used up in reacting with the inert sugars. This allows the ClO2 to act on the bacteria themselves, destroying the biofilm.

Chlorine dioxide is one of several disinfectants that are effective against Giardia Lambia and Cryptosporidium oocysts, which cause diseases such as cryptosporidiosis in public drinking water supplies. Several public water works are now utilizing chlorine dioxide generation systems alongside UV systems in order to provide complete protection from Cryptosporidium.