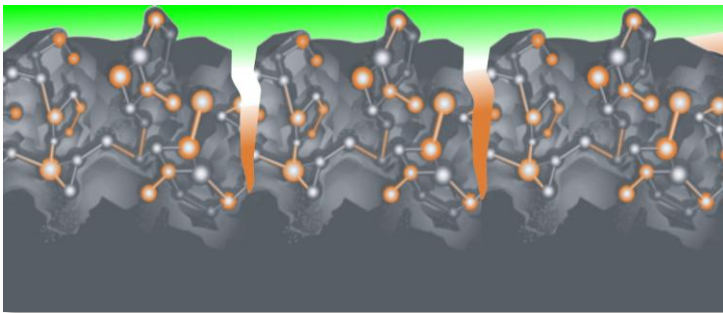


**Patented prevention of pitting corrosion –
Ceramic Polymer - coating against anaerobic biocorrosion
induced by SRB bacteria!**

Developed and patented by us! (Patent No. EP 2448415 B1)

Our multiannual research project has been successfully completed. As the single manufacturer we feature **lasting protection against pitting corrosion** for biogas plants and storage tanks for crude oil and all kinds of hydrocarbons.

Title of the patent: Composition for the prevention/reduction of microbe-induced biocorrosion caused by sulfate-reducing bacteria (SRB) and other microorganisms

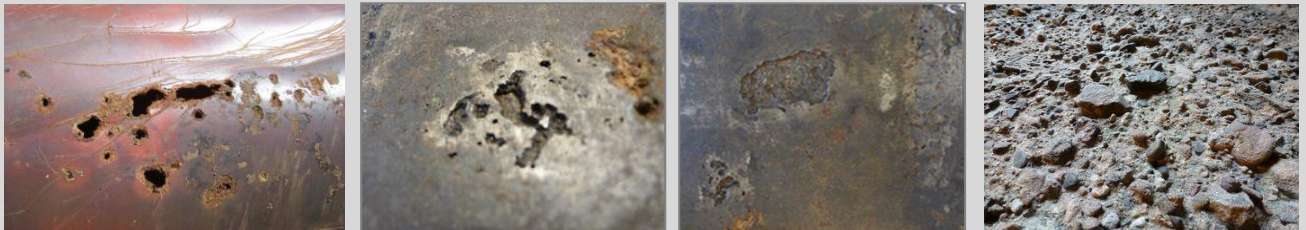


Picture: Functionality of the patented Ceramic-Polymer-coating

As soon as micro cracks occur in the coating, the special biocide crystals burst and unfold their effect within the whole crack. The SRB are killed before they can settle. The existing depot effect causes a long-lasting biocidal corrosion protection without localized erosion.

MIC – Microbiologically influenced corrosion provoke fatal pitting corrosion

Anaerobic biocorrosion (MIC) causes much trouble in different sectors of industry. The anaerobic microorganisms provoke a 10-times higher corrosion rate by the release of specific enzymes (mainly "hydrogenase"). Moreover, the bacteria produce toxic hydrogen sulfide. Only in Germany, MIC leads to losses in the amount of double-digit billions and to environmental damages of inestimable dimensions; **20% of all costs caused by corrosion are based on microbial destruction of the material.**



*Pitting corrosion, advanced biocorrosion and extreme concrete erosions;
induced by microbial metabolic products
(release of special enzymes and hydrogen sulfide)*

NEWSLETTER ♦ 02 / 2014

Mainly responsible for the anaerobic corrosion are sulfate reducing bacteria (SRB). These microorganisms accelerate corrosion in tanks and technical installations, which come in contact with water and organic materials. Since years, various conferences, studies and examinations regarding this matter are conducted. Also many publications are released. The complex of problems is clearly identified and scientifically proven. But so far no long-run concept for the prevention of biocorrosion was generated.

The **Ceramic Polymer GmbH** as well as the new established sister company **Ultra Perform Coatings GmbH** provide with these specific coating systems **the solution for effective and durable prevention of severe biocorrosion – absolutely unique on the international market.**

Would you like to know more about MIC? Please follow the links below.

[What happens exactly during anaerobic corrosion induced by SRB-bacteria? Here you will get a detailed explanation of the corrosion process.](#)

(Our News regarding the topic „MIC” on our website www.ceramic-polymer.de/www.proguard-coatings.de)

[Article on Prolog: MIC – Microbially influenced corrosion / New coating against biocorrosion induced by SRB bacteria](#)

[Article on Environmental Expert: Unique coating system from Ceramic Polymer GmbH](#)

Do you have any questions concerning our special coatings?

Our corrosion experts will gladly assist you.