Coatings against Bio Corrosion:

Patented prevention of pitting corrosion – 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 durable 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

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.

Functionality of the patented Ceramic-Polymer-coatings: 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.
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 visit our Website www.ceramic-polymer.de / Industry Bio Corrosion.

Do you have any questions concerning our special coatings? Our corrosion experts will gladly assist you.