

Company Profile

REWITEC® – Protecting against wear, enhancing energy efficiency and extending service life

REWITEC®, founded in 2003 and based in the central Hesse town of Lahnau (Germany), develops, produces and globally markets an innovative nano-coating based on several different synthetic and mineral silicate compounds. This is used in so-called tribological systems, not least for gears, bearings, internal combustion engines and similar. Even under the most extreme conditions metal surfaces get enhanced through insertion into the microscopic metal mesh structure of extremely fine silicates with a special formula. Even worn surfaces get partially restored.

As proven by scientific tests (run in summer 2012 at Mannheim University), this achieves up to 33% less friction, 20% less increase in temperature and 50% less roughness. The metal silicate surface generated in this way smoothes the part it rubs against, optimises the tribological properties and thus increases energy efficiency. Assemblies thus consume less energy and engines less fuel, which means a reduction in power consumption and in emissions of CO₂ and other harmful substances. Wind turbines, for example, are able to generate more power and all kinds of industrial plant are able to last longer. In addition to the savings effect, this therefore also produces benefits for the user in terms of investment confidence and extension of maintenance intervals. Not forgetting, either, the issues of environmental protection and sustainability.

Surfaces are treated during ongoing operations without any expensive downtime or costs, with the active substance simply getting added to the lubricant, but not altering the latter's properties. Instead it reacts on the material's surface – we are thus talking here not of a classic oil additive, but rather about a metal refinement process. REWITEC® is compatible with practically all standard mineral and synthetic oils on the market and can also be applied in grease or glide coatings.

Its main areas of use include: wind energy (gears, bearings etc.), marine (main and auxiliary engines, winches, separators etc.), industry (gears, generators, compressors, bearings etc.), automotive (engines, gears, bearings, differentials, drive trains etc.) and many more besides. The company has already been a finalist for the German Industry Innovation Prize in 2007 and for many other awards.

