

## A LIGHTHOUSE FOR CLEAN ENERGY INSTALLATION OF A FUEL CELL POWER PLANT

Europe's first fuel cell power plant in the megawatt class will be installed in an industrial environment on the site of FRIATEC AG in Mannheim. The power plant is expected to go into operation in June 2016.

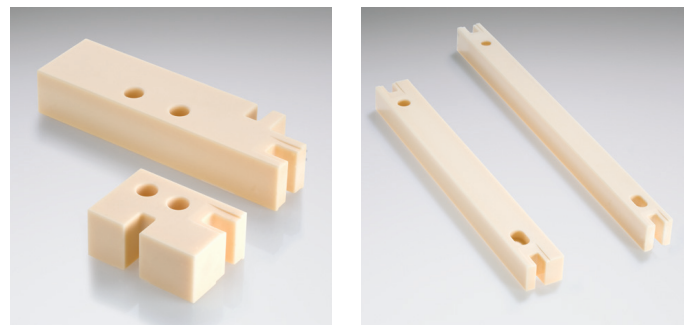
The 1.4 MW-fuel cell with an electrical efficiency of 47 percent will provide approximately 60 percent of the power requirements of FRIATEC's production processes. This will enable FRIATEC to generate up to 46 percent of the required electrical energy, leading to a reduction of CO<sub>2</sub> of approximately 3,000 tons annually.

FRIATEC has entered into a partnership with E.ON Connecting Energies and FuelCell Energy Solutions GmbH which are responsible for the technical implementation, installation and maintenance of the plant.

Fuel cells convert fuel into electricity and heat using a highly efficient, electrochemical process. As there is no combustion, the process emits practically no pollutants. Just like a battery, a fuel cell comprises many individual cells that can be assembled to form a fuel cell stack. Each individual cell contains an anode, a cathode and an electrolyte. When a hydrogen-rich fuel such as natural gas or biogas enters the fuel cell stack, it reacts electrochemically with oxygen (i.e. air) to produce electric current, heat and water. While a typical battery provides a fixed amount of energy, fuel cells continually generate current as long as fuel is supplied.



Delivery of the fuel cell module at the FRIATEC premises on 18 February 2016



Dielectric rails made of FRIALIT F99,7 for the fuel cell



from left: Michael Schäfer (Project Manager), Klaus Wolf (CEO), Bernhard Stähle (ALIAxis HR Director Germany)

„We are very proud to be a pioneer in the implementation of this technology“, says FRIATEC Chairman Wolf.

### Competence plus responsibility

Our clients rightly expect first class service with sustainable value.