

German Innovation Award for Celitement®

Environmentally Compatible Cement Developed by KIT Wins in the Category of Product and Service Innovations



This is where the innovative cement is produced: The Celitement pilot plant on Campus North of KIT. (Photo: Markus Breig)



KIT Energy Center: Having future in mind

Monika Landgraf
Press Officer

Kaiserstraße 12
76131 Karlsruhe, Germany
Phone: +49 721 608-47414
Fax: +49 721 608-43658

The environmentally compatible cement Celitement® developed by Karlsruhe Institute of Technology (KIT) is granted the 2011 German Innovation Award for Climate and the Environment (IKU). Today, Celitement GmbH founded by KIT, the four inventors, and SCHWENK Zement KG received the award in the category of Product and Service Innovations at Berlin. The Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety and the Bundesverband der Deutschen Industrie e. V. (Federation of German Industries) grant this award for outstanding innovations in climate and environmental protection. The award is endowed with EUR 25,000.

“The German Innovation Award again reflects the high potential of this development made by KIT. With Celitement®, we want to contribute to climate protection in the building sector,” said Dr. Peter Fritz, KIT Vice President for Research and Innovation.

“We will remain fit for the future, if we learn to combine economic growth with environmental protection and low consumption of re-

sources. The ideas of the laureates are evidence of the compatibility of economy and ecology,” said the Federal Minister for the Environment, Dr. Norbert Röttgen, in Berlin.

Cement holds together all concrete buildings. Every year, cement works produce nearly three billion tons of the binder. During production, they also emit three billion tons of the greenhouse gas carbon dioxide annually. These emissions exceed those of global air traffic by a factor of three to four. Cement production has a share of about five to seven percent in worldwide carbon dioxide emissions. Compared to conventional cement production processes, Celitement® promises an enormous reduction of energy consumption. Presumably, carbon dioxide emissions will be halved. Moreover, the new cement is characterized by a low consumption of resources. Compared to conventional Portland cement, only one third of the amount of limestone is required and it can be done completely without a gypsum additive. “This is achieved by a novel production process, in the main stage of which temperatures of about 200°C are needed only. Conventional cement clinker requires 1450°C,” emphasized Dr. Hanns-Günther Mayer and Dr. Peter Stemmermann, who accepted the award for Celitement GmbH.

The jury chaired by Professor Klaus Töpfer selected the four IKU 2011 laureates from among 76 applications this year. The Federal Ministry for the Environment, Nature Conservation, and Reactor Safety and the Federation of German Industries (BDI) granted the award for the third time.

A photo of the awards ceremony will be available for download on January, 18, 2012 on www.kit.edu.

Karlsruhe Institute of Technology (KIT) is one of Europe’s leading energy research establishments. The KIT Energy Center pools fundamental research with applied research into all relevant energy sources for industry, households, services, and mobility. Holistic assessment of the energy cycle also covers conversion processes and energy efficiency. The KIT Energy Center links competences in engineering and science with know-how in economics, the humanities, and social science as well as law. The activities of the KIT Energy Center are organized in seven topics: Energy conversion, renewable energies, energy storage and distribution, efficient energy use, fusion technology, nuclear power and safety, and energy systems analysis.

Karlsruhe Institute of Technology (KIT) is a public corporation according to the legislation of the state of Baden-Württemberg. It fulfills the mission of a university and the mission of a national research center of the Helmholtz Association. KIT focuses on a knowledge triangle that links the tasks of research, teaching, and innovation.

This press release is available on the internet at www.kit.edu.

The photo of printing quality may be downloaded under www.kit.edu or requested by mail to presse@kit.edu or phone +49 721 608-47414. The photo may be used in the context mentioned above exclusively.