

With Instituto Superior Técnico

Cimpor launches research and development project

Lisbon, 4th January – Cimpor signed yesterday a contract with *Instituto Superior Técnico*, the largest and most reputed school of Engineering, Science and Technology in Portugal, to carry out a research and development project to explore the possibility of manufacturing new materials as alternatives to cement.

Research & Development is of strategic importance to Cimpor, which positions itself on the frontline of the future challenges of the industry. In the long term, the company aspires to find new technology that will make it possible to produce a material with the same properties as cement on an industrial scale, using fewer natural resources and emitting less CO₂.

The contract now signed with *Instituto Superior Técnico* (IST) will be executed in parallel and complementary to the research project that Cimpor has been undertaking since 2008 with the Massachusetts Institute of Technology (MIT), relating to nano-engineering of calcium silicate hydrate (C-S-H) using computer simulation techniques.

Over the next three years, the research will focus on the experimental manufacture of materials that have already been simulated and through experimental and computer-based techniques on deepening the hydration mechanism of clinker, with a constant focus on identifying gains in efficiency without losing quality.

The team involved in the project that is now beginning is made up of staff members of Cimpor Tec, the Cimpor Competence Centre for Cement, and has the scientific coordination and laboratorial support of IST, which is also supervising the doctorate theses of Cimpor staff involved in the scientific research.

Cimpor Tec, which has its headquarters in Lisbon, is responsible for the group's innovation and technical development across the world and for supporting business units in areas as diverse as geology and raw materials, process engineering, products and quality, innovation and development of new products, laboratory testing, technical training and sustainable development, amongst others.

The quality, safety, durability and low cost of construction using cement make it an indispensable part of modern life as well as the second most consumed material in the world after water. For that reason the cement industry continues to face an important challenge in reducing global greenhouse gases, despite the significant progress that investment in R&D and application of new technologies have provided in reducing unit emissions.

With a relevant presence in the world market, CIMPOR is a cement manufacturing group with its headquarters in Portugal. Having now industrial activities in 12 countries – Portugal, Spain, Cape Verde, Brazil, Morocco, Egypt, Tunisia, Turkey, South Africa, Mozambique, India and China – where it operates 26 cement plants with a total production capacity of 36 million tons of cement per year, it employs 8,500 persons of 33 different nationalities. In 2010, CIMPOR generated a turnover of 2.240 billion euros, an operating cash flow of 630 million euros and a net profit of 242 million euros.