REFRACT - Recycling of used refractories from various industries to produce Aluminosilicate refractories ceramics and masses

Concerning the European policy and strategy on the issues of circular economy and especially the recycling of raw materials, the effort to recycle used refractory materials from various sectors of the Greek and European industrial companies is considered as a key for achieving the goals of circular economy. The REFRACT project's main objective is to develop firstly at a laboratory scale and secondly at an industrial scale innovative refractory masses and bricks using recycled refractory materials with properties that meet the requirements set by the operating conditions of industrial furnaces. Significant know-how and expertise will be acquired in using recycled refractory raw materials to produce final refractory products. On a second stage, the possibility of using recycled refractory materials for the production of third-party products (non-refractory) will be studied. The study will reach the stage of experimental testing and will not proceed to the pilot production of the resulting products. Additionally, an environmental footprint assessment system will be designed and developed concerning the production and

This research was supported by the European Regional Development Fund of the European Union and Greek national funds (Greek Secretariat for Research and Innovation—GSRI) through the Operational Program Competitiveness, Entrepreneurship, and Innovation, (EPAnEK 2014–2020) under the call RESEARCH—CREATE—INNOVATE. Project: "Recycling of used refractories from various industries to produce alumino-silicate refractories, ceramics, and masses" (project code: T1EDK05442). It belongs to priority thematic area 4 (PBA: ENVIRONMENT AND SUSTAINABLE DEVELOPMENT) and in particular, to specialization 4.4.1 DEVELOPMENT OF WASTE TREATMENT SYSTEMS. The project, with a budget of €980,000, involves three (3) faculty members of the Department of Civil Engineering (Dr D. Alexakis, Dr G. K. Varelidis and Dr Is. Vryzidis), a research laboratory and two (2) collaborating faculty members of the Department of Business Administration of University of West Attica.

Project Duration: 36 months

Consortium - Partners: MATHIOS S.A., University of West Attica, Technical University of

Crete

Project URL: http://refract.uniwa.gr/