



Starting Point for Project GREENZO Established

Within the framework of project GREENZO for obtaining zinc oxide by the recovery of waste from zamak injection, the starting points for the proper development of the project actions have been defined. Moreover, the state of the art for obtaining zinc from industrial waste was established, as well as the specifications to be fulfilled by these wastes to be tested and the specifications that zinc oxide must meet for the demonstrator applications.

Zamak is an alloy composed mainly of **zinc** (Zn), aluminium (Al), magnesium (Mg) and copper (Cu) which is supplied in the form of ingots. Zinc is contained within these ingots in an average of 95% in Zamak-5, the most common in Europe.

In the injection process, a large amount of waste, such as **slag, vibration sludge, chips, defective parts**, etc. is generated. Vibration sludge is managed as hazardous waste and landfilled securely and the rest is transformed in second-class ingots (which constitute 25% of the 1.2 million tonnes of zamak consumed). All this waste is used in the recycling process.

Among the secondary methods for the recovery of zinc from industrial waste we can find some processes based on the plasma arc technology: converter, Waelz, electric arc furnace and flame reactor. The study of these processes has determined that the former has a great potential to generate first-class ingots from industrial waste. Therefore, this technology will be used in the pilot plant project.

Zinc oxide is used in many applications (Figure 1). The target specifications for this project have been identified: chemical catalysis in the vulcanization of rubber/EVA and ethanol reforming for obtaining hydrogen.

This project, which will be developed in 3 years, is funded by the European Commission through the financial instrument LIFE13 ENV/ES/000173 GREENZO. It is coordinated by AIJU; ITQ-CSIC, WORTEUROPE and CAUCHOS KAREY participate in this project.

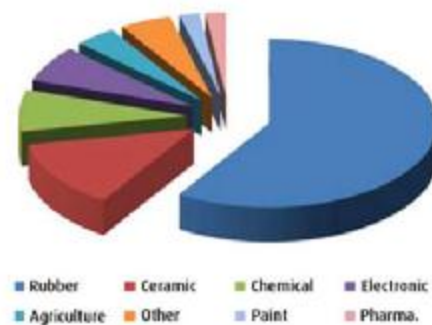


Figure 1 ZnO applications

Successful development of the last workshop on 19th November



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