

Valorization of iron foundry sands and dust in ceramic tile production process



The main objective of the LIFE FOUNDRYTILE project is to demonstrate the valorization of iron foundry sands and dust in the ceramic tile production process. The innovative character is provided by the utilization of green and chemically bonded foundry dust and sand in tile production replacing natural raw materials, clay (for red firing ceramic products) and sands (for white firing ceramic products).



FOURTH CONSORTIUM MEETING

Last 9th of May 2017 the fourth general meeting of the FOUNDRYTILE project was held in the headquarters of the partner ASCER (Asociación Española de Fabricantes de Azulejos y Pavimentos Cerámicos), in Castellón.

The meeting showed the correct development and implementation of the project, which was confirmed by the positive evaluation of the Progress Report received by the European Commission. The results already achieved were also highlighted. Then, the coordinator of the project, CTM, summarized the economic and financial issues of the project, explaining the executed part taking into account the next Mid-Term Report that the consortium have to present in the coming months.

PROGRESS OF ACTIONS

Firstly, a general summary of all the actions already completed was made. Afterwards, actions B, C, D and E were analyzed one by one.

After having detected the content of Fe_2O_3 and organic carbon as the critical parameters for the use of by-products in ceramic tiles, there have been identified different pretreatments for the conditioning of the by-products. Among the pretreatments performed, the **physical separation** was discarded, since it is insufficient the C reduction that it allows to reach.

As for the **magnetic separation** pretreatment, there have been obtained positive results for the green molding sands. For the phenol isocyanate sands, the results of Fe_2O_3 are still being analyzed in the different samples obtained.

Regarding **thermal pretreatments**, good results have been obtained for furanic sands.

Topics such as chemical risk analysis for human health, life cycle analysis (LCA) and transport costs of by-products were also discussed.



Regarding the dissemination actions planned for the coming months, there can be highlighted the presentation of the project in the Infoday Regional about the LIFE Program to be held on 30th of May 2017 in Valencia; participation in the Waste Engineering and Circular Economy Congress of the School of Civil Engineering in Santander on 13th and 14th of June; Subcontracting Fair 2017 between 6th and 8th of June in Bilbao (BEC).

www.foundrytile.eu

Next consortium meeting:

- AFV's facilities, Bilbao.
- October 2017.



Project cofinanced by the LIFE program of the European Union

