

### **POLYMIX** news

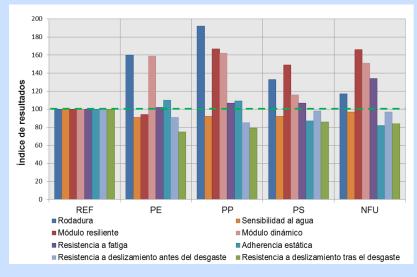
POLYMER WASTES IN ASPHALT MIXES: A WAY TO INCREASE SUSTAINABILITY OF ROAD

POLYMIX LIFE+ Project NEWSLETTER - N°2 FEBRUARY 2014

# POLYMIX successfully carried out mechanical characterization in laboratory

The POLYMIX mixtures have been manufactured incorporating four types of polymeric waste: ELT, polypropylene coming from rubber caps, polyethylene coming from packages and polystyrene coming from hangers. The mechanical performance from these mixtures has been studied and analysed by the group GITECO in the Road Laboratory of the University of Cantabria.

According to the results obtained, in most of the cases, the addition of polymeric waste increases the rigidity of the mixtures without compromising their fatigue behaviour. Besides, in the specific case of ELT, both generally opposing properties are improved.



This increase would mean that POLYMIX mixtures can bear higher loads with lower deformations and at the same time transmit less load stresses to the lower layers. An advantage coming from this is the chance to reduce the necessary asphalt mixture thickness to stand up the same loads than the conventional mixture used as reference. Reducing the necessary amount of asphalt mixture, the investment cost and the use of natural resources (aggregates and energy) would decrease, incrementing the road sustainability. On the other hand, the POLYMIX project offers a new way to recycle huge amounts of polymeric waste with a simple method that can be reproduced in any asphalt plant.

# POLYMIX organizes a theoretical-practical course on the design of improved asphalt mixtures

The consortium POLYMIX has organized in the Technological Centre of Acciona Infrastructures (Madrid) a theoretical-practical course on the design of improved asphalt mixtures. During the course, the students got first-hand information about the evolution of roads and the design and characterization of innovative asphalt mixtures. Moreover, the POLYMIX project was presented, the steps carried out for the design, characterization, implementation in a real test section and finally the works performed during the monitoring. In the same way, the attendants were able to visit the laboratory of the Acciona technological centre where tests and practical demonstrations were carried out.









## Success in attendance and participation in the workshop POLYMIX: "Development of asphalt with polymeric waste"

The partners of the project POLYMIX organized a free workshop on the development of asphalt with polymeric waste. The conference took place last Tuesday 12 February in the Transport and Infrastructures Office of the Madrid Government. Among the speakers were MAGRAMA, REPSOL, CEDEX and ASEFMA.

The workshop gathered more than 60 people related with road infrastructure. The talks and the results presented raised great interest among the attendants. The talks were transmitted live via streaming in the University Alfonso X. The talks presented can be downloaded from the project website <a href="http://www.giteco.unican.es/polymix/Events.html">http://www.giteco.unican.es/polymix/Events.html</a>













### Forthcoming events

Free webinar organized by AIMPLAS. March 2014.

More information will be available in the project website or in AIMPLAS website.

Free webinar organized by VIAM about green public procurement. April 2014

More information will be available in the project website.

Presentation of results in the congress LJMU 2014 (Liverpool). February 2014

The University of Cantabria will present results of the project in the congress "International Conference on Asphalt Pavement Engineering and Infrastructure" to be held in the University John Moore in Liverpool.

Presentation of results in the congress ICTI 2014 (Pisa). April 2014

Acciona Infrastructuras will present results of the project in the congress "Sustainability, Eco-Efficiency, and Conservation in Transportation Infrastructure Asset Management" to be held in Pisa next April.

#### More information

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This newsletter is part of the dissemination and communication activities of the project LIFE10 ENV/ES/516 "POLYMIX".

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