OBJECTIVES

- Investigating the multi-recyclability of several rubberised asphalt technologies
- Engineering Rub-RAP asphalt mixtures with acceptable performance
- Assessing the environmental risk of the fumes at laboratory scale

EXPECTED\RESULTS

Tailor guidelines/recommendations about the use of Rub-RAP and promote its recyclability in road pavement

What is RUBBERAP??

"Can we effectively recycle RUBBERised AsPhalt?"

RUBBERAP is an international cooperation project between the University of Palermo, the Gustave Eiffel University and Ecopneus scpa, Italian non-profit company for the tracking, collection, processing, and final destination of end-of-life tyres.

The project aims to provide scientific evidence regarding the feasibility of effectively use Rubberised Reclaimed Asphalt (Rub-RAP) at laboratory scale and beyond.

CONACT US

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RUBBERAP is an international cooperation project by UNIPA and ECOPNEUS

with the support of SMACOM, Universite Gustave Eiffel, Asfalti Milotta and GD SRLS

RUBBERAP

Investigating the multi-recyclability of rubberised asphalt mixtures

Can we reduce waste?

Reduce

End of Life Tires (ELTs)

Reclaimed Asphalt Plainings (RAP)

How do we recycle ELTs in asphalt ?

Recycle

End of Life Tires (ELTs)

Crumb Rubber Modifier (CRM)

CRM treatments for asphalt applications

Rubberised Asphalt Technologies (Rub -A)

How do we reuse rubberised asphalt ?

Reuse

Rubberised Reclaimed Asphalt (Rub -RAP)

RubbeRAP mixes Design

RubbeRAP mixes Mechanical characterisation

RubbeRAP mixes Fume analysis

IS IT POSSIBLE TO RECYCLE RUBBERISED ASPHALT MIXES?

To achieve that, a multidisciplinary experimental programme involving the engineering characterisation of reclaimed rubberised asphalt will be performed, furthermore the mechanical performance and the quality of the fumes produced during the mixing will be determined. The laboratory campaign will be carried out by comparing benchmark mixes as control with Rub-RAP mixes produced with at least two aging cycles.

The project is developed in collaboration with Ecopneus and the Gustave Eiffel University and based at the engineering department of the University of Palermo. Further partner may be involved during the 24 months, with aim of providing qualitative support and/or further features to enrich the project proposal.

THE NOVELTIES OFFERED BY THIS STUDY ARE:

- Investigating wet, dry and hybrid asphalt rubber technologies.
- Considering the two aging levels Producing mixes with high content of Rub-RAP (50%)
- Analysing the Rub-RAP mixes in terms of fumes quality and performance-related testsi

RUBBERAP IS DEVELOPED BY

UNIVERSITÀ DEGLI STUDI DI PALERMO

ecopneus

with the support

smac m

Université Gustave Eiffel

DS ASFALTI SRL